Understanding the Early Years

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Community Research in Child Development

Results of the Community Mapping Study on Prince Edward Island

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Early Childhood Development Association of PEI
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Disclaimer

The ever-changing nature of community programs and services adds extra complexity to a community mapping study. The Early Childhood Development Association of PEI did its best to ensure the collection of a complete and accurate inventory of resources. This report was created based on the data that were available and information provided by a number of community resources, including the Info PEI database, the HIRC database, and various local directories. The resources collected and studied for this report are not intended to provide an exhaustive list, but to serve as an important first step in understanding the programs, services, and physical and social environments of the Province of Prince Edward Island.

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1. Helping Communities Give Children the Best Possible Start

Improving our understanding of the factors that help or hinder child development and increasing community capacity to track how well children are developing are both crucial to ensuring the best possible start for Canada's children.

Understanding the Early Years (UEY), developed by the Applied Research Branch (ARB) of Human Resources Development Canada (HRDC), emerged in response to a growing recognition that the kind of nurturing and attention that children receive in early childhood can have a major impact on the rest of their lives.

Researchers have found that the early years of development from before birth to age six set the base for competence and coping skills that will affect learning, behaviour and health throughout life (see McCain & Mustard, 1999 and Doherty, 1997 for a discussion of additional current research in this area). These early years are critical for children's development as they shape long-term outcomes, not only related to academic and employment success, but also to children's overall health, quality of life, and ability to adapt.

UEY seeks to provide information about the influence of community factors on children's development and to enhance community capacity to use these data to both monitor early childhood development and to create effective community-based responses.

Understanding the Early Years (UEY) is a national research initiative that provides research information to help strengthen the capacity of communities to make informed decisions about the best policies and most appropriate programs to offer families with young children. It is designed to assist communities across Canada in achieving their goal of improving early childhood development by providing them with the necessary information to enhance or adapt community resources and services. It gives communities knowledge of how childhood experiences shape learning, health and well-being, allows them to track how well their children are doing, and to optimize child development through the strategic mobilization of resources and programs.

UEY builds on the National Longitudinal Survey of Children and Youth (NLSCY), a joint Human Resources Development Canada and Statistics Canada initiative. The NLSCY began data collection in 1994 and is the definitive source of national longitudinal data for research on child development in Canada. Its purpose is to increase our knowledge about the factors affecting child development and well-being.

Initial research on child development has shown that community factors may impact child outcomes, but only further research can show the magnitude of the impact and the mechanisms through which it occurs (Kohen, Hertzman, & Brooks-Gunn, 1998).

Therefore, one of the main purposes of UEY is to help determine the extent and nature of community influences on child development and how this might vary from family to family, school to school, classroom to classroom, and neighbourhood to neighbourhood. It includes

three separate but complementary data collection components that allow for more detailed monitoring and reporting at the community level:

- The NLSCY Community Study;
- The Early Development Instrument; and
- The Community Mapping Study.

Together, this information will enhance our understanding of the community factors that affect early childhood development and the ways a community can best support the needs of young children and their parents.

Components of the UEY Initiative

The NLSCY community study:

What we learn from parents

An enhanced version of the NLSCY was developed to collect more detailed information from parents to help assess family use of community resources and the impact of these community resources on children's developmental outcomes. Randomly selected households, representative of all schools in PEI, were chosen to participate in this voluntary survey. The information will be analyzed to determine the relative importance of community factors on child development as compared to the impact of individual and family factors.

The NLSCY - Community Study was administered during the late spring of 2000 and will be administered again in 2004.

The Early Development Instrument:

What we learn from teachers

The Early Development Instrument (formerly known as the School Readiness to Learn Instrument) is a questionnaire for kindergarten teachers. The Early Development Instrument (EDI) is designed to measure children's early development – before they start grade one – in the following:

- Physical health and well-being;
- Emotional health and maturity;
- Social knowledge and competence;
- Language development and thinking skills; and
- Communication skills and general knowledge.

As an instrument designed to measure children's "readiness to learn," the EDI assesses how well children are prepared to participate in school activities. Developed by Dr. Magdalena Janus and Dr. Dan Offord at McMaster University's Canadian Centre for Studies of Children at Risk, the instrument was designed and tested in collaboration with teachers, educators and several pilot projects.

The purpose of the EDI is to help communities assess how well they are doing to support child development. The Instrument is an age-appropriate measure that indicates how children in a classroom are developing. It cannot be used to assess an individual child's development.

By profiling early childhood in a community, the EDI enables communities to simultaneously look backward and forward. For example, a community can look backward

to adjust early childhood programs to better support early child development, and can look forward to adjust school programs so that they meet the current needs of incoming students.

The Community Mapping Study:

What we learn from community mapping

The purpose of this report is to focus on the results of the Community Mapping study, conducted in PEI. This study gathered information about:

- The physical and socio-economic characteristics of the neighbourhoods in which children live;
- The kinds of programs and services that were available to children aged six and younger and their parents; and
- Where these programs were located.

Three data sources were used: the 1996 Census, neighbourhood observations (see Appendix D for details), and a program survey (see Appendix E) which compiled an inventory of neighbourhood services. Putting together the information collected from these three components will provide a framework for analysis that will not only suggest *what* is working well or less well, but which will also give some indication as to *why* services and neighbourhood resources work the way they do. This analysis will also provide the basis for community-wide discussions on how to develop community strategies and to allocate resources with the goal of optimizing child development outcomes.

Such information will be provided to communities so they can make the best use of their resources to support early childhood development.[1] This information can be used to gain greater understanding of:

- Whether resources are in close proximity to where children live;
- Whether there is equitable distribution of key resources; and
- The most effective way for the community to plan, prioritize and allocate resources for child development.

Defining the community in which children live

The concepts of neighbourhood and community incorporate aspects of psychology and sociology together with geography, and may be defined by the social interactions and functions that occur in a particular place in addition to its actual location. Although there are numerous ways of defining neighbourhoods and communities, for the purposes of this report, neighbourhoods will be defined and referred to using the geographical boundaries of Enumeration Areas (EAs), while the terms "community" and "province" will apply interchangeably to PEI as a whole. An EA (in this report, a neighbourhood) is the smallest standard geographic area for which census data are reported. There are 267 EAs on Prince Edward Island. Groups of EAs are known are Census Tracts; there are 4 Census Tracts on Prince Edward Island.

[1] For more information on the theoretical framework underlying this research and the selection of instruments, refer to Connor & Brink, 1999.

UEY Results:

Putting It All Together

When the results of the NLSCY-Community Study, the Early Development Instrument, and the Community Mapping Study are analysed, the information helps communities to:

- Measure children's early development before they enter school;
- Show how community influences impact on child development in the early years;
- Profile the type and availability of community resources for families and children;
- Assess how well the needs of local families with young children are being met; and
- Learn more about how research can be used at the local level to bring about improvements for children.

UEY in PEI

Working together for children on Prince Edward Island

The Early Childhood Development Association (ECDA) of PEI has been providing a collective voice for Early Childhood Care and Education professionals in the province for over twenty-five years. The ECDA has approximately 400 members, including owners and operators of licensed early childhood facilities, professionals working in related fields, teachers, and parents.

Over the years, the ECDA has come to embrace the idea of working with other people on behalf of children. They started to develop partnerships around children's issues, such as literacy, early screening and early intervention. The ECDA was also involved early on in the emerging talks around the determinants of health, and the impact of the early years on future health.

More recently, the Early Childhood Development Association of PEI played a major role in the development of a provincial strategy on healthy child development. The ECDA helped to coordinate and facilitate events in small communities across PEI during the consultation phase, and had a leadership role on the Healthy Child Development Advisory Committee, the group tasked with researching and developing the provincial strategy. In November 2000, *...For Our Children: A Strategy for Healthy Child Development* was presented to the Premier of Prince Edward Island. This strategy reflected a comprehensive, integrated approach to healthy child development relevant to the unique nature of our Island.

The *...For Our Children* document was a result of a provincial partnership forged between government and community. The report set the stage for PEI to make the nurturing and caring of our Island children the highest of priorities. Since the release of the report, the challenge over the next five years is to engage the community in a comprehensive effort, involving government, the private sector and the voluntary sector, to improve children's readiness to learn in school.

Because of the congruence of the goals of the ECDA, the Province of PEI and the UEY Initiative, PEI became the first province-wide site to implement the UEY project. The research was conducted by the ECDA on PEI throughout the year 2000 (see Appendix A for more information on the ECDA).

II. The Community of Prince Edward Island

The purpose of this report is to examine the social, physical and resource environment of Prince Edward Island with respect to early childhood development.

Prince Edward Island is the smallest of the Canadian provinces both in size and population. While it is densely populated, it is not overcrowded. According to Statistics Canada, the population of PEI in 2000 was 138,900. There were approximately 11,080 children age 0-6 on PEI in 2000, comprising 8% of the population. The Province is divided into three counties: Prince, Queens and Kings. The capital city, Charlottetown, is located in the central region of the Island, in Queens County, and has a population of 32,500. The second largest city, Summerside, is located in the western region of PEI, in Prince County, and has a population of 14,500 (See Appendix B for supplementary maps that show the communities and main highways in PEI).

The Island is 224 km long and 6-64 km wide, covering 5,660 square kilometres. No place in the province is more than 16 km (10 mi) from the sea. Approximately 56% of the population live in rural areas, with farm area covering 47% of the Island. The majority of the population is of British ancestry, and approximately 11% of the population speak French. The major industries on PEI are Agriculture, Tourism and Fishery, all seasonal industries that are dependent on our land and the weather.

Map 1 - Where did the children live?

This map displays the distribution of children aged six and younger across the community; each dot represents 10 children.

- Although children aged six and younger were distributed across all parts of PEI, the areas with the highest densities of children were in and around Charlottetown and Summerside.
- According to the 1996 Census, approximately 51% of young children, birth to age 6, lived in Queens County; 34% in Prince County and 15% in Kings County.

Given the wide geographic spread of children from tip to tip of our rural Island, it is important to ensure the degree that programs and support services are accessible to children and their parents, in all areas of the province.

Map 2 - Which areas of PEI had the highest numbers of families with children?

In 1996, there were approximately 35,755 households on PEI. Approximately 68%, or 24,320 households, were made up of families with children who were living at home.

- Most neighborhoods (55%) had less than 100 families with children at home.
- In Queens County, there were approximately 18,535 households. Of these, 12,595 were households with children at home. Therefore approximately 68% of Queens County households were made up of families with children at home.
- Queens County, the central region of PEI, had the majority of families with children: 52% of families on PEI with children at home lived in Queens County.

Map 1: Where did the children live on PEI?

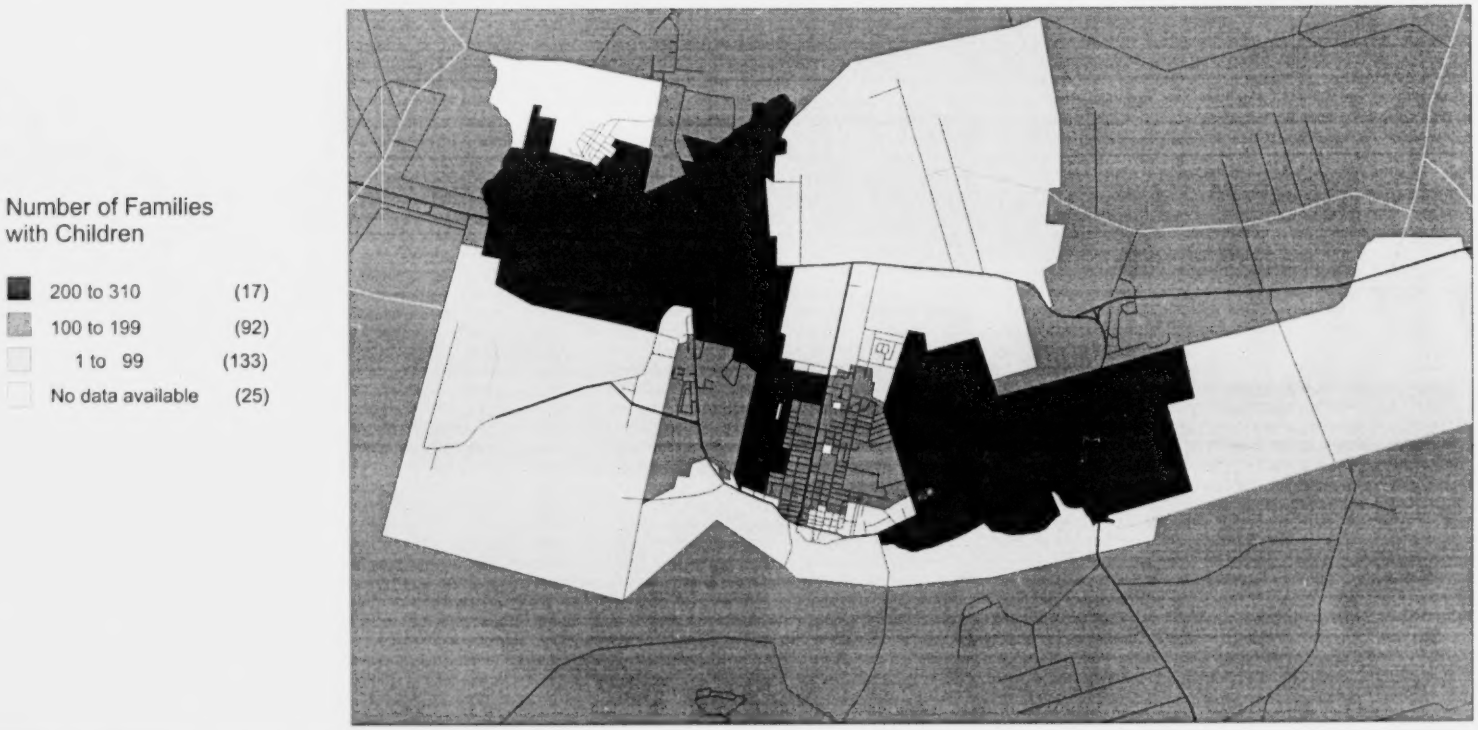
Community Research in Child Development
Resultats of the Community Mapping Study on PEI, ECDA of PEI, 2001
Source: 1996 Census

Map 2a: Which areas of PEI had the highest numbers of families with children?

Community Research in Child Development
Resultats of the Community Mapping Study on PEI, ECDA of PEI, 2001
Source: 1996 Census

Map 2b: Which areas of Charlottetown had the highest numbers of families with children?

Map 2c: Which areas of Summerside had the highest numbers of families with children?



- In Prince County, there were 12,200 households. There were 8,135 with children at home, or 67% of households.
- In Kings County, there were approximately 5,020 households. There were 3,590 families with children at home, or 72% of households.

Knowing where families with children live has implications for where child- and family-centred resources should be located to ensure that all children and families have access to them.

III. The Social Environment on Prince Edward Island

This section provides socio-economic and demographic information about the neighbourhoods where children on Prince Edward Island lived using data from the 1996 Census. A number of characteristics of the residents, such as family status, education, employment and income were examined. This analysis helps researchers learn more about a number of critical questions related to the social environment of children living in PEI's various neighbourhoods.

A child's social interaction with other people can have an important influence on his or her development. Children's capacity for successful, positive social interaction begins at a young age, and is influenced by early close relationships, their experiences with other children and the guidance and instruction that comes from parents and other family members (see Doherty, 1997). These relationships can be complemented by interactions with other people beyond the family, such as care-givers and residents of their neighbourhood and the larger community. Children's expectations and behaviours can be affected by role models in the community.

This section provides socio-economic and demographic information about the neighbourhoods where children on Prince Edward Island lived using data from the 1996 Census. A number of characteristics of the residents, such as family status, education, employment and income were examined. This analysis helps researchers learn more about a number of critical questions related to the social environment of children living in PEI's various neighbourhoods.

Population mobility

How many of Prince Edward Island's neighbourhoods were either stable or transient and how many children and families resided in such neighbourhoods?

Why ask this question?

Neighbourhoods with higher levels of stability are those in which community members are more likely to act on behalf of the common good of children. Social ties are an important prerequisite to neighbourhood cohesion and collective efficacy, defined as social cohesion among neighbours and their willingness to intervene on behalf of the common good (Sampson, Raudenbush & Earls, 1997). On the other hand, weakened social ties create a climate conducive to crime and other types of anti-social behaviour. In other words, in neighbourhoods where residents are isolated from each other, social ties tend to be weak and a sense of common interest is even weaker.

One way to measure neighbourhood stability is by measuring the proportion of individuals who made a residential move in the last year. High rates of residential mobility and transience in neighbourhoods often

correspond to social disruption and weakened social ties.

Some theorists suggest that positive peer and adult role models in the community can influence child development and well-being, particularly in terms of behaviour and learning, while negative environments may deprive children of positive social supports, while exposing them to unhealthy or otherwise anti-social behaviours. (Furstenberg & Hughes, 1995; Jencks & Mayer, 1990)

Map 3 . Which areas had the highest mobility?

- The average number of PEI residents who had changed homes in the previous year was 11% of the population - lower than the national average of 16%.
- Most of PEI's neighborhoods (78%) had mobility rates that were below the national average.
- The neighborhoods that had mobility rates greater than the national average were located in Summerside, Charlottetown, and the southern, central region of the Island.
- A few isolated neighbourhoods in downtown Charlottetown and downtown Summerside had high levels of mobility, where more than 29% of the population had moved in the previous year. Such transient neighbourhoods were also associated with higher levels of potential risk factors for children, including higher poverty rates and lower education levels and income levels.
- There were 11 Enumeration Areas (EAs) (5%) in Summerside and Charlottetown characterized by high mobility. More than half of their population (62% of the households) was comprised of families with children. In total, there were 505 children aged six or younger living in these enumeration areas – neighbourhoods which could be affected by other factors associated with instability and disadvantage.
- Overall, PEI's neighbourhood mobility rates were below the national average. However, specific community resources may need to be targeted to children and their families living in the areas of Summerside and Charlottetown, communities with higher mobility.

Education and employment

How educated were people in the community and how many residents were employed?

Why ask this question?

Education levels of residents are considered a crucial factor in the socio-economic environment of communities where children grow and develop. Adults in the community with high levels of education are more likely to be employed, less likely to live in poverty, and more likely to serve as positive role models and mentors to their own children and children in the community. Conversely, those with lower education levels may face diminished employment prospects, and are more likely to live in poverty. Parents' level of education also has been shown to be related to the developmental outcomes of their children.

Map 3a: Which areas had the highest mobility?

Community Research in Child Development
Resultats of the Community Mapping Study on PEI, ECDA of PEI, 2001
Source: 1996 Census

Map 3b: Which areas of Charlottetown had the highest mobility?

Proportion of the Population that Moved within the Previous Year
No data available (26)
29.8% or more (11)
17.1% to 29.7% (42)
4.4% to 17% (123)
Less than 4.4% (65)

Map 3c: Which areas of Summerside had the highest mobility?

Proportion of the Population that Moved within the Previous Year
No data available (26)
29.8% or more (11)
17.1% to 29.7% (42)
4.4% to 17% (123)
Less than 4.4% (65)

Research has shown that neighbourhoods with high levels of unemployment can impact negatively on children's behavioural outcomes (Kohen, Hertzman, Brooks-Gunn, 1998).

For example, problems in neighbourhoods with high unemployment rates may be compounded by higher poverty and lack of available resources. Such neighbourhood characteristics can negatively impact a child's environment and overall well-being.

Several studies have also found relationships among the general socio-economic climate of neighbourhoods (of which levels of education and employment are important components) and the development of the children who live in them. Such studies have shown that neighbourhoods with residents of higher average socio-economic status were associated with more positive developmental outcomes (Brooks-Gunn, Duncan, Klebanov, & Sealand, 1993; Chase-Lansdale, Gordon, Brooks-Gunn & Klebanov, 1997; Halpern-Felsher et al., 1997).

Map 4 - Which areas had the highest proportion of people with a post-secondary education?

- According to the 1996 Census, approximately 46% of PEI residents aged 15 or over had enrolled in or completed some type of post-secondary education (college diploma or university degree).
- In the majority of Island neighbourhoods (69%) more than 40% of the residents older than age 15 had a post-secondary education. There were more of these neighbourhoods in the central portion of the Island.
- Approximately 17% of children aged six and younger (2,015 children) lived in neighbourhoods with high levels (60% or more) of residents with post-secondary completion. Most of these neighbourhoods were located in the greater Charlottetown area.
- The areas of the province that had fewer residents with a post-secondary education were located in the eastern and western ends of the Island.
- Very few neighbourhoods (12) had fewer than 20% of residents with a post-secondary education. Approximately 405 children aged six and younger lived in these neighbourhoods.

Map 5 - Which areas had the highest proportion of people without a high school diploma?

- On PEI, 43% of people aged 15 and over had not yet obtained a high school diploma. This figure was higher than the national average of 37%.
- Approximately 65% of the Island's EA's (157 EAs) were neighbourhoods where the percentage of individuals without a high school diploma was greater than the national average of 37%. More than half of all children aged six and younger on PEI (61% of children or 7070) lived in these neighbourhoods, which were largely concentrated in the western and eastern ends of the Island.
- Areas with a high proportion of individuals who did not have a high school diploma (above or equal to 54% of individuals) were home to 1,815 children (about 16% of the PEI population aged six and younger).

Map 6 - What were the employment rates of the neighbourhoods?

- The unemployment rate on PEI was 14%, measured at the time of the 1996 Census.

Map 4a: Which areas had the highest proportion of people with a post-secondary education?

Community Research in Child Development
Resultats of the Community Mapping Study on PEI, ECDA of PEI, 2001
Source: 1996 Census

Map 4b: Which areas of Charlottetown had the highest proportion of people with a post-secondary education?

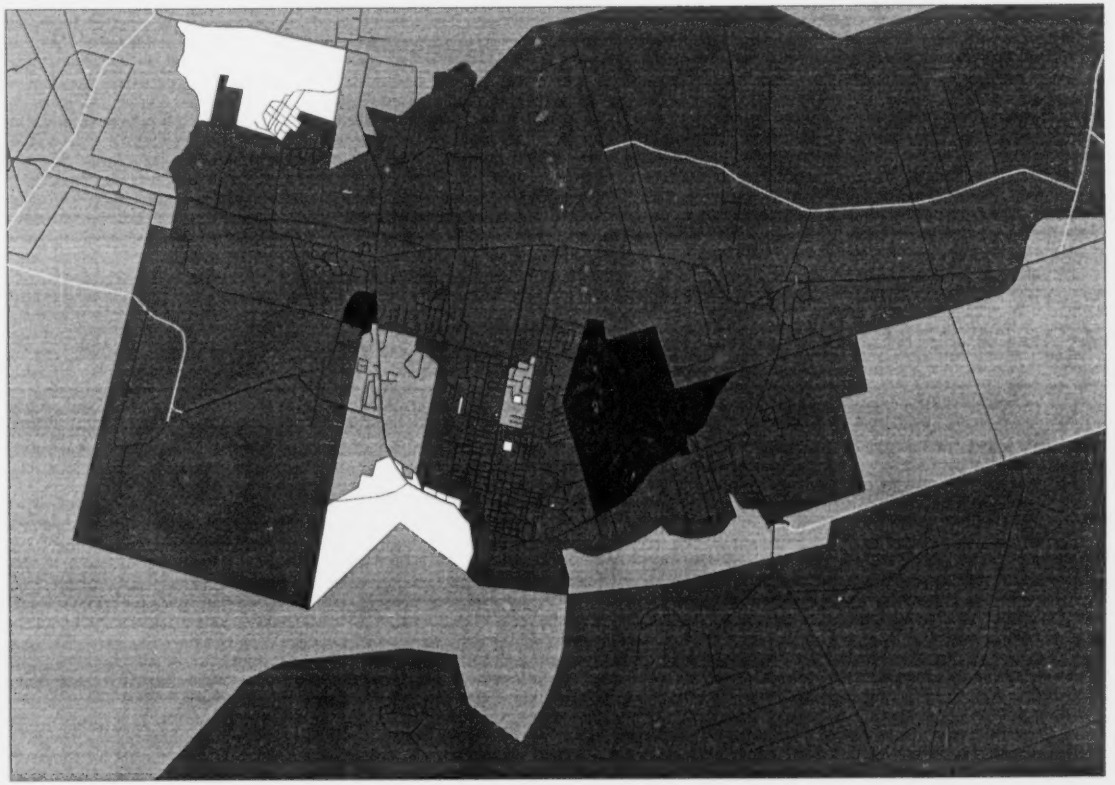
Proportion of the Population Aged 15 and Over with a Post-Secondary Education

No data	(24)
60% or more	(42)
40% to 59%	(125)
20% to 39%	(64)
Less than 20%	(12)

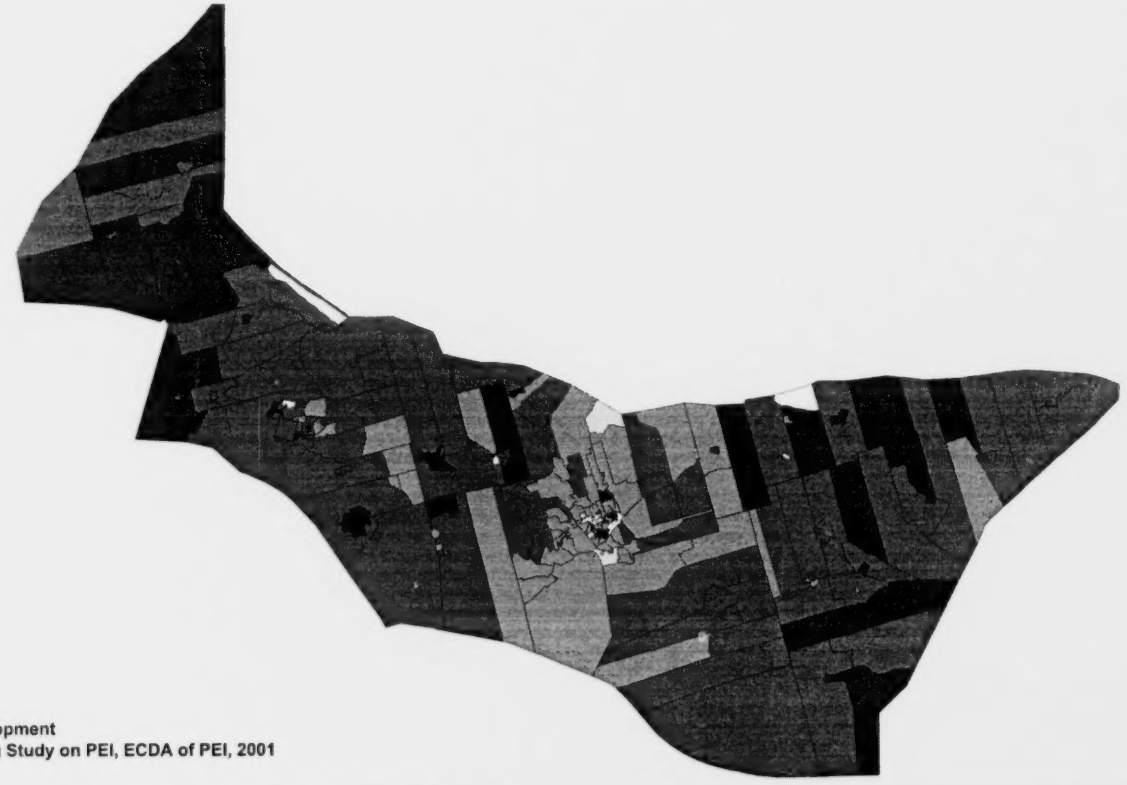
Map 4c: Which areas of Summerside had the highest proportion of people with a post-secondary education?

Proportion of the Population Aged 15 and Over with a Post-Secondary Education

No data	(24)
60% or more	(42)
40% to 59%	(125)
20% to 39%	(64)
Less than 20%	(12)



Map 5a: Which areas had the highest proportionof people without a high school diploma?

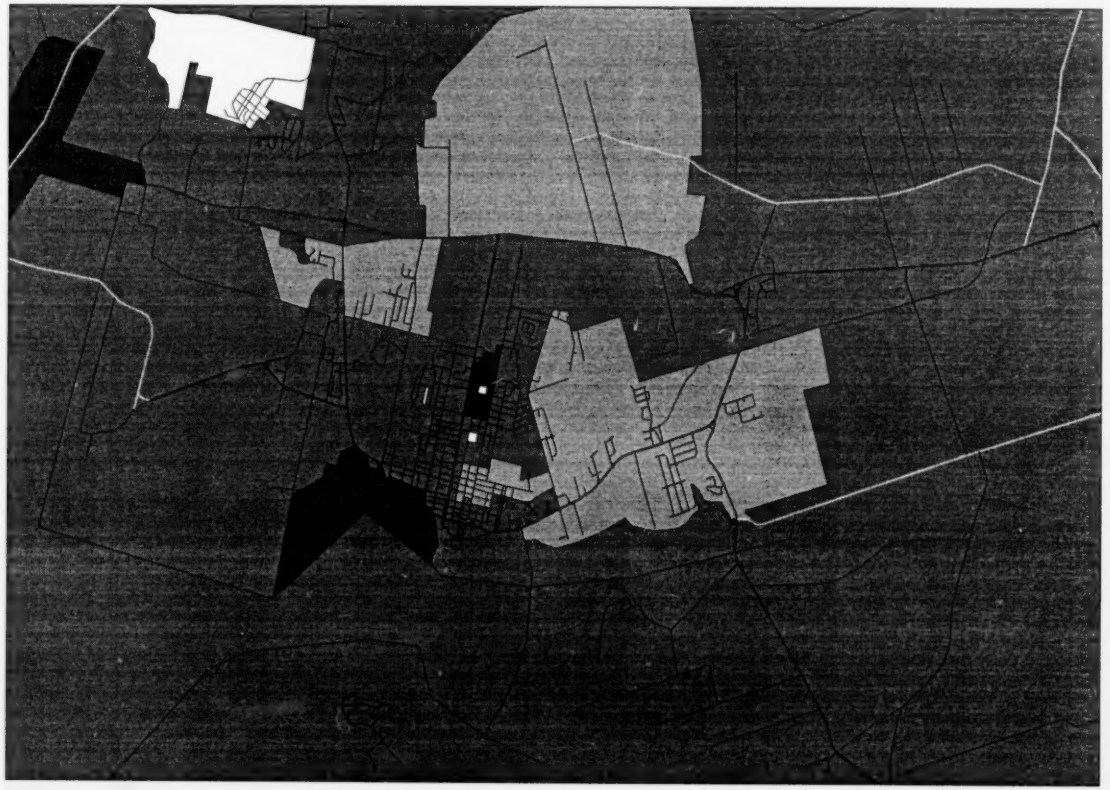


Community Research in Child Development
Resultats of the Community Mapping Study on PEI, ECDA of PEI, 2001
Source: 1996 Census

Map 5b: Which areas of Charlottetown had the highest proportionof people without a high school diploma?

Proportion of the Population Aged 15 and Over with less than a High School Education
No data available (24)
53.9% or more (45)
37.6% to 53.9% (112)
21.3% to 37.6% (74)
Less than 21.3% (12)

Map 5c: Which areas of Summerside had the highest proportionof people without a high school diploma?


Proportion of the Population Aged 15 and Over with less than a High School Education
No data available (24)
53.9% or more (45)
37.6% to 53.9% (112)
21.3% to 37.6% (74)
Less than 21.3% (12)

Map 6a: What were the employment rates of Island neighbourhoods?

Community Research in Child Development
Resultats of the Community Mapping Study on PEI, ECDA of PEI, 2001
Source: 1996 Census

Map 6b: What were the employment rates of Charlottetown neighbourhoods?

Map 6c: What were the employment rates of Summerside neighbourhoods?

This rate was higher than the unemployment rate for Canada at that time, which was 10.0%.

- The majority of neighbourhoods on PEI (63% of them or 154 EAs) had unemployment rates greater than the national average.
- There were 32 neighbourhoods on the Island with high unemployment (greater than 22%). Approximately 978 children aged six and younger lived in these neighbourhoods, located in rural areas of the eastern, western and northern central regions of the Island.

When considering the employment characteristics on PEI, one must also consider the seasonal nature of the major industries: agriculture, tourism, fishing and manufacturing. With 47% of the total land area on PEI used for farming, and with every community located within 16 km from the water, rural and seasonal industries impact the nature of Island communities. The following maps are designed to demonstrate the potential impact of rural and seasonal industries on the development of young children.

Map 7 – Which areas of PEI had the highest numbers of people employed in agriculture?

- In 1996 approximately 8% of the population in the labour force on PEI was employed in agriculture. This rate was higher than the overall rate in Canada (3% of the labour force employed in agriculture.
- Approximately 21% of the neighbourhoods on PEI (52 neighbourhoods) had more than 15% of their residents employed in agriculture. Approximately 2,185 children aged six and younger lived in neighbourhoods that had a high rate of employment in agriculture.
- In PEI, the percentage of the labour force employed in agriculture, which is primarily seasonal work on the Island, is 2.7 times the national average.

Map 8 – Which areas of PEI had the highest numbers of people employed in rural industries?

The rural industries described in this map include agriculture, fishing, manufacturing and transportation.

- Over 50% of the EAs on PEI are neighbourhoods where at least 25% of the population are employed in rural industries.
- Approximately 5,770 children aged six and younger (49%) live in these neighbourhoods.
- The central portion of PEI has the smallest proportion of people employed in rural industries.

Given the nature of these industries (e.g. long work days with irregular work hours during the season, little work available at other times of the year, and product outcomes that are dependent on nature) the resources required for children and their families in these communities may need to change throughout the year. In other words, flexible services and supports are required to meet these dynamic conditions for children and families.

Map 7: Which areas of PEI had the highest numbers of people employed in agriculture?

Community Research in Child Development
Resultats of the Community Mapping Study on PEI, ECDA of PEI, 2001
Source: 1996 Census

Map 8: Which areas of PEI had the highest numbers of people employed in rural industries?

Community Research in Child Development
Resultats of the Community Mapping Study on PEI, ECDA of PEI, 2001
Source: 1996 Census

Household incomes

What were the income levels of Prince Edward Island residents?

Why ask this question?

Adequate household income is essential to purchase goods and services, to access resources (through transportation, for example) and to benefit from cultural resources such as books and theatres. Neighbourhoods where a high number of residents live in poverty may lack resources and lack of access to mainstream social networks and role models through processes of isolation and segregation. These neighbourhoods may also experience overcrowding, lower levels of safety, a less-desirable physical environment, and a scarcity of resources.

Neighbourhoods where a high number of residents live in poverty can pose challenges to families and children, service providers and policy makers.

Map 9 - What was the average household income in Island neighbourhoods?

- The average household income on PEI in 1996 was $42,637, which was $3,678 lower than the national average household income of $46,315. More than half of PEI's neighbourhoods had average incomes below the national average household income.
- All but four Island neighbourhoods had average household incomes in the range of $25,417 to $67,213.
- Only 3 neighbourhoods had average household incomes greater than $67,214, and these were located in Charlottetown and Stratford, a community near Charlottetown.

Map 10 - Which areas of PEI had the highest proportion of low income households?

- In PEI, the individual poverty rate (measured as the proportion of individuals living below Statistics Canada's Low Income Cut-Off) was 15%, compared to the national rate of 21%.
- Seven neighbourhoods had 38% or more of their residents living in poverty. These neighbourhoods were located in Charlottetown.
- Most Island neighbourhoods (more than 70%) had poverty rates that were below the national average.
- However, over one-quarter of PEI's population – and 3,189 children aged six and younger (27%) resided in neighbourhoods that had poverty levels that were higher than the national average. There were pockets of these areas throughout the Island.

Family structure

What was the predominant family structure of households in the neighbourhoods?

Why ask this question?

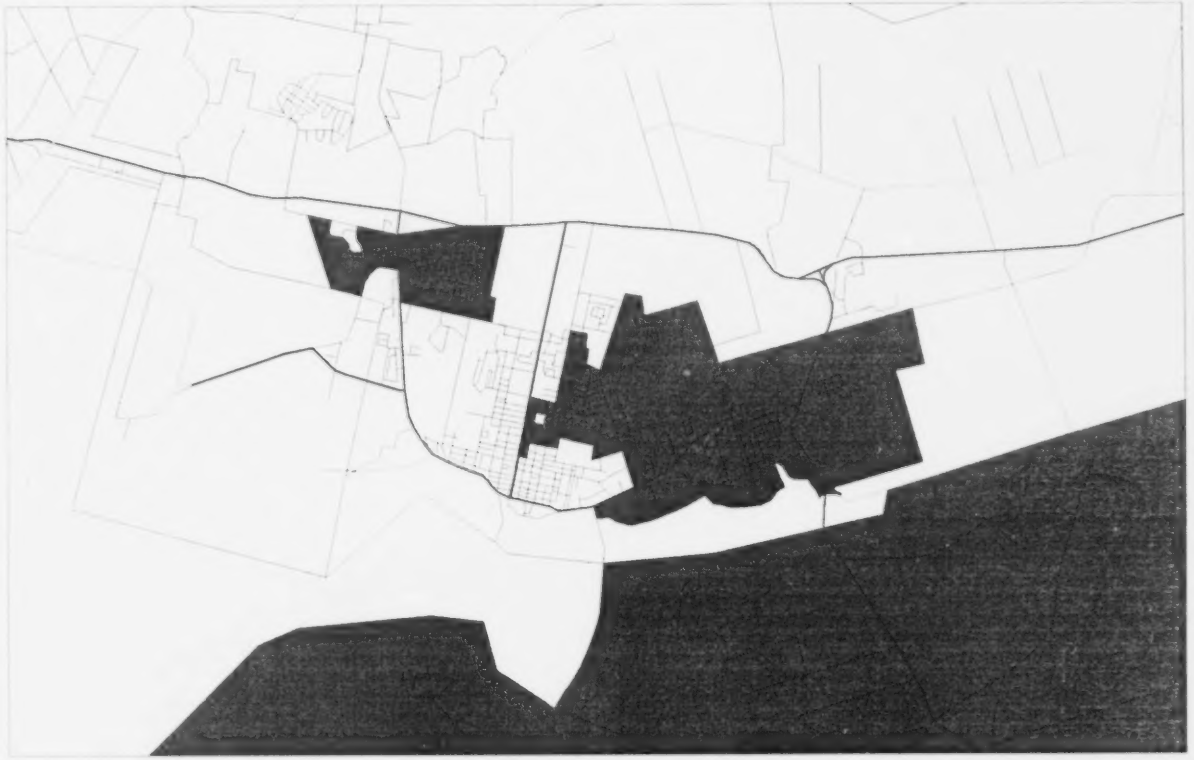
While most children from lone-parent households do well, research has shown that a higher proportion of children with cognitive and behavioural problems come from these families (Lipman, Boyle, Dooley, & Offord, 1998; Ross, Roberts, & Scott, 1998). In addition, a higher incidence of two-parent families living in a neighbourhood has been linked to healthier child and adolescent

Map 9a: What was the average household income in Island neighbourhoods?

Community Research in Child Development
Resultats of the Community Mapping Study on PEI, ECDA of PEI, 2001
Source: 1996 Census

Map 9b: What was the average household income in Charlottetown neighbourhoods?

Map 9c: What was the average household income in Summerside neighbourhoods?



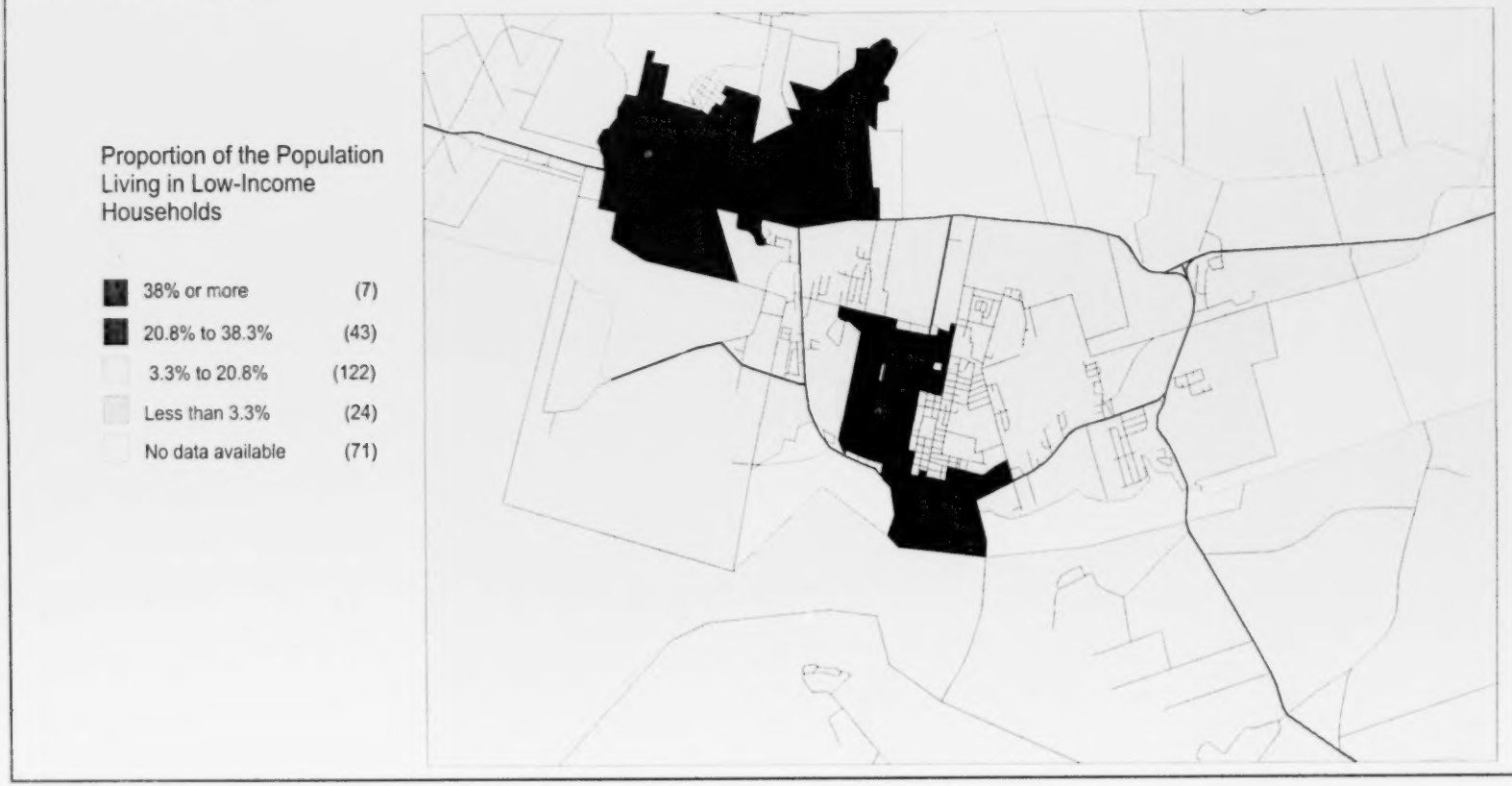
Map 10a: Which areas of PEI had the highest proportion of low income households?

Community Research in Child Development
Resultats of the Community Mapping Study on PEI, ECDA of PEI, 2001
Source: 1996 Census

Map 10b: Which areas of Charlottetown had the highest proportion of low income households?

Proportion of the Population Living in Low-Income Households
38% or more (7)
20.8% to 38.3% (43)
3.3% to 20.8% (122)
Less than 3.3% (24)
No data available (71)

Map 10c: Which areas of Summerside had the highest proportion of low income households?


Proportion of the Population Living in Low-Income Households
38% or more (7)
20.8% to 38.3% (43)
3.3% to 20.8% (122)
Less than 3.3% (24)
No data available (71)

development (Brooks-Gunn, Duncan, Klebanov, & Sealand, 1993).

Map 11 - Which areas of PEI had the highest proportion of families with children headed by a lone-parent?

- In PEI, the proportion of families with children that were headed by a lone-parent was 19%, which was lower than the national average of 26%.
- Of all Island neighbourhoods, 23% of these neighbourhoods had a proportion of lone-parent families greater than the national average. Just under one-quarter of all children aged six and younger (2650 children) lived in these neighbourhoods.
- A relatively small number of neighbourhoods (24) had a high proportion of lone-parent families (greater than 44%). These areas were in Charlottetown and Summerside, as well as in three rural neighbourhoods in Queens County, and one community in western PEI.

Ethnic and linguistic diversity

How diverse was the community?

Why ask this question?

The ability to speak English or French – Canada's two official languages – is important to successfully navigate the many transitions involved in settling into a new country. Knowledge of a country's official languages allows for easier access to goods and services, and facilitates getting and keeping a job. The work of Kobayashi, Moore, & Rosenberg (1998), for instance, found that immigrant families who spoke neither of Canada's official languages were less likely to use formal community supports such as community and social service professionals, religious or spiritual leaders.

Map 12 - Which areas had the highest proportion of recent immigrants?

- Between the years of 1991 and 1996, all of the neighbourhoods on PEI had a very small percentage of new immigrants. In fact, the average rate of immigration in Island neighbourhoods was less than 1%, compared to the national average of 7%.

Map 13 - Which areas had the highest proportion of residents who did not speak English or French?

There were very few areas of PEI that had residents unable to speak either English or French.

- The average proportion of residents on PEI that could speak neither offical language was less than .5%, well below the national average of 4%.

Putting it all Together: Creating a Social Index

A Social Index was developed to help provide both a general picture of neighbourhoods within the broader community and the number of potential challenges they faced.

Nine variables were selected for their usefulness in describing the socio-economic context of communities, encompassing measures in the areas of education, employment, income level and multiculturalism. Each variable was then compared with the national average, which provided a threshold for evaluating the neighbourhoods. Having the national average as a standard of comparison will be important

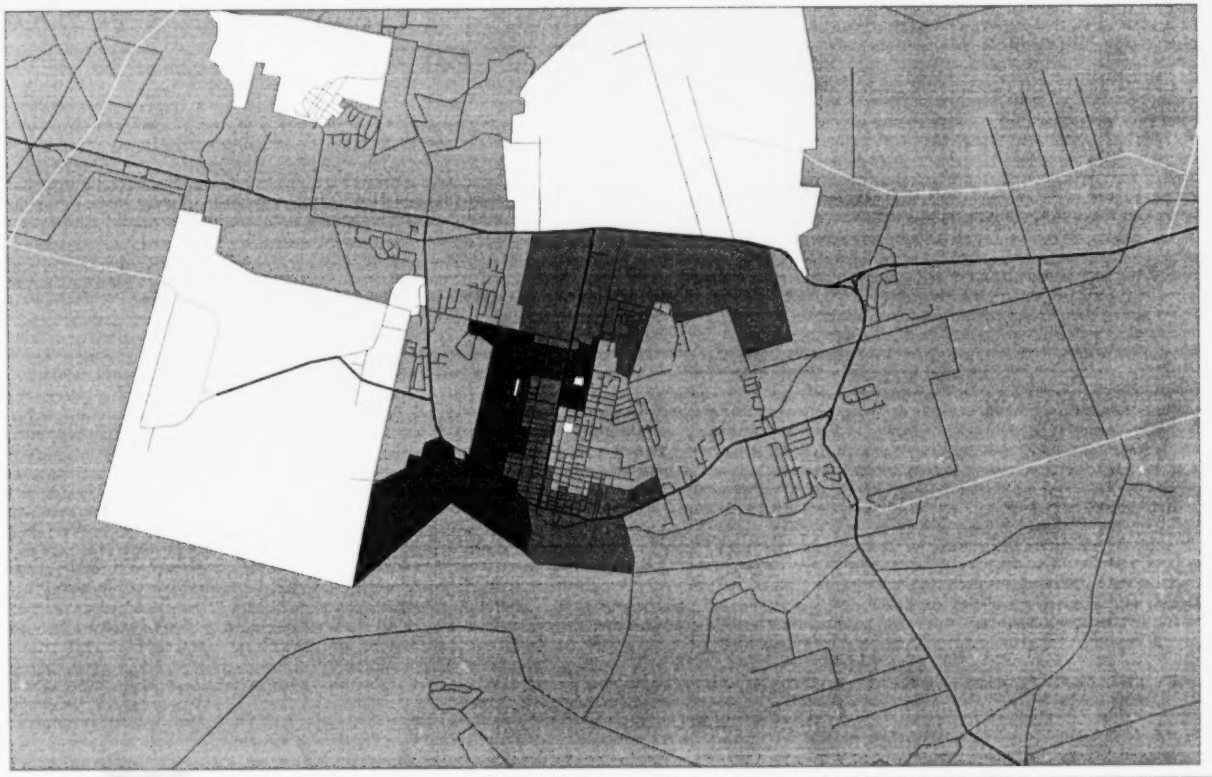
Map 11a: Which areas of PEI had the highest proportion of families with children headed by a lone-parent?

Community Research in Child Development
Resultats of the Community Mapping Study on PEI, ECDA of PEI, 2001
Source: 1996 Census

Map 11b: Which areas of Charlottetown had the highest proportion of families with children headed by a lone-parent?

Proportion of Families with Children Headed by a Lone Parent
Greater than 44.1% (24)
26.6% to 44.1% (37)
9% to 26.6% (117)
Less than 9% (64)
No data available (25)

Map 11c: Which areas of Summerside had the highest proportion of families with children headed by a lone-parent?


Proportion of Families with Children Headed by a Lone Parent
Greater than 44.1% (24)
26.6% to 44.1% (37)
9% to 26.6% (117)
Less than 9% (64)
No data available (25)

Map 12: Which areas had the highest proportionof recent immigrants?

Community Research in Child Development
Resultats of the Community Mapping Study on PEI, ECDA of PEI, 2001
Source: 1996 Census

Map 13: Which areas had the highest proportion of residents who did not speak English or French?

Community Research in Child Development
Resultats of the Community Mapping Study on PEI, ECDA of PEI, 2001
Source: 1996 Census

for looking at variations among different areas of the country as the UEY initiative expands. It will enable comparisons within a community, among communities, and at the same time, to compare a particular community to the country as a whole. Four categories were established:

- Low risk (one or two challenges);
- Somewhat low risk (three or four challenges);
- Somewhat high risk (five or six challenges); and
- High risk (seven or more challenges).

(Refer to Appendix C for a more detailed description of how the Social Index was calculated).

In order to provide a composite measure of socio-economic risk in communities, a Social Index was developed to provide both a general picture of neighbourhoods within the broader community and the number of potential challenges they faced. Among other uses, the Social Index can serve as a tool to help communities better allocate resources to meet the needs of children and families by permitting analysis of concentrations of need and of the multiple demands placed on community services.

The following is a list of the nine variables that made up the Social Index:

1. Unemployment rate;
2. Individual poverty rate;
3. Proportion of individuals aged 15 and over without a high school diploma;
4. Proportion of families with children headed by a lone-parent;
5. Proportion of the population speaking neither official language;
6. Proportion of the population that immigrated to Canada, between 1991 and 1996;
7. Mobility in one year;
8. Home ownership;
9. Proportion of the total income in the EA coming from government transfer payments (e.g., Canadian Pension Plan, Canadian Child Tax Benefit, provincial social assistance payments).

Map 14 - What did the Social Index indicate about the socio-economic risks of PEI's neighbourhoods?

- 3,755 Island children aged six and younger (32.3%) lived in the lowest-risk neighbourhoods (with two or fewer risks).
- 8,595 children (74%) lived in low risk neighbourhoods (with 4 or fewer challenges) neighbourhoods.
- Over one quarter, or 3,090 children aged six and younger lived in EAs considered to be at higher-risk. These EAs were located in the more urban areas of Charlottetown and Summerside, although a few of these neighbourhoods were scattered in rural areas of the Island.
- A score of 7 or greater out of 9 indicates areas of highest risk. Only 10 EA's scored 7. All of these areas were located in Summerside or Charlottetown. Approximately 615 children aged six and younger lived in these areas. No neighbourhood on PEI scored an 8 or 9.

Map 14a: What did the Social Index indicate about the socio-economic risks of PEI's neighbourhoods?

Community Research in Child Development
Resultats of the Community Mapping Study on PEI, ECDA of PEI, 2001
Source: 1996 Census

Map 14b: What did the Social Index indicate about the socio-economic risks of neighbourhoods in Charlottetown?

Map 14c: What did the Social Index indicate about the socio-economic risks of neighbourhoods in Summerside?

How can this information be used on behalf of children?

- Prince Edward Island generally scored well on this composite measure of the socio-economic environment. However, it is important to identify some variables where Island neighbourhoods consistently scored less well than the national average. For example, over 75% of Island neighbourhoods scored above the national average on the proportion of the population that did not complete a high school diploma, and on the proportion of the income that came from government transfer payments. Many of these areas also demonstrated high unemployment and/or high poverty levels.
- Most of the higher-risk areas were located in Charlottetown and Summerside where, as will be evident in later chapters, many of the services are located. Therefore, these areas may not require *more* services but *specific* services to help children and families to overcome disadvantages.

Table 1 – Number of children in EAs with differing numbers of risk factors

	Risk Potential of Neighbourhoods			
	Low risk (0to 2 of the challenges)	Somewhat low risk (3 to 4 challenges)	Somewhat high risk (5 to 6 challenges)	High risk (7 or more challenges)
Number of EAs	58	92	36	10
Percent of EAs	29.6%	46.9%	18.4%	5.1%
Number of children aged 0-6	3,775	4,820	2,475	615
Percent of children aged 0-6	32.3%	41.2%	21.2%	5.3%

** data was not available for 71 EA's*

- No EA's on PEI scored 8 or 9, indicating the highest risks, because no EA on PEI scored less well than the national average on 2 variables: the proportion of the population that could not speak either official language and the proportion of the population that were recent immigrants. While these measures indicate that communication barriers should be rare to Island residents, it is nonetheless important to ensure that services are available for children and parents in their primary language, proximal to where they live. In addition, other potential barriers to access – such as transportation needs and the seasonal nature of Island rural employment – should be addressed in order to ensure that children and families are able to access supports and services.

IV. The Physical Environment

Research exploring community effects on children's development place little emphasis on the physical characteristics of neighbourhoods. However, the quality of the physical environment in a community can affect the health and well-being of families and children.

The neighbourhood observations component of the Community Mapping Study was designed to assess the physical and infrastructure aspects of the community. It looked at factors that may affect the development and behaviour of children, such as the quality of homes, street lighting conditions and traffic volumes, and the presence and amount of parks and green space.

This chapter focuses on the quality of the physical environment. Information was collected through neighbourhood observations on:

- Traffic patterns;
- Presence of garbage or litter; and
- Overall look at physical characteristics in the community (Refer to Appendix D for a complete analysis of the results of the neighbourhood observations).

Traffic Patterns

How did traffic flow through PEI?

Why ask this question?

A good road network and free-flowing traffic are essential for movement and access. However, if not well designed, traffic flow can have a negative impact on the lives of young children.

Greater exposure to traffic (as measured by the number of streets crossed on a child's way to and from school) has been positively correlated with injury rates in children (Macpherson, Roberts, & Pless, 1998). Injuries, many of which may be caused by motor vehicles, are one of the leading causes of death for children and youth across the country (Federal/Provincial/Territorial Advisory Committee on Population Health, 1999).

In addition, injuries cause disruptions for children and their parents, as they may require medical attention or time away from school. Traffic related injuries have been reported to be higher for boys than for girls (Macpherson, Roberts, & Pless, 1998).

Crossing main streets or roads can present a greater risk to children. Younger children have been reported to have higher rates of injury, even though exposure to traffic has been shown to be lower for younger children than for their older counterparts (Floss, Verreault, Arsenault, Frappier, & Stulinskas, 1987).

Injury rates are higher for children living in regions with lower socio-economic status.

Socio-economic status is also related to injury rates, with higher maternal education (12 years or more) being associated with less exposure of children to traffic and decreased

rates of childhood injury (Floss, et al., 1987). Paradoxically, low density, single family homes in the suburbs may require children to cross more streets, although these streets may have less traffic.

Map 15 - Where did children live in relation to traffic patterns on Prince Edward Island?

Traffic volume on neighbourhood roads was assessed by tracking the number of cars that passed by per minute.

- In most areas of PEI, traffic volume was light. Almost three-quarters of the neighbourhoods had traffic patterns that were rated as light or very light.

- There were no areas on PEI that were rated as heavy traffic areas.
- Over 28% of the neighbourhoods were rated as moderate traffic areas, with 7-9 cars passing by per minute. All of these areas were in the urban centres of Charlottetown and Summerside.
- 78.4% of the streets were standard two-lane roadways. The remainder consisted of either four or more lanes (18.6%) or one-lane roads (almost 3%).
- Very few neighbourhoods (less than 5%) had streets with marked cross walks.
- Stoplights were observed in almost one-quarter of the neighbourhoods (23.5%), although very few of these neighbourhoods had more than one stoplight.

Traffic patterns and the Social Index

In PEI, the areas with higher volumes of traffic were the cities. Many of these urban areas also tended to have a higher number of risk factors according to the Social Index.

Traffic observations were completed in the spring, a time believed to be representative of typical traffic patterns on PEI. However, traffic patterns in PEI do change throughout the year. Island roads, especially in Charlottetown, Summerside and along Highway 1 and 2, experience more traffic during the summer months.

Type of neighbourhoods

Map 16 – What type of neighborhoods do children live in on PEI?

- Over half of the EA's were rural neighborhoods. There were 48 EA's (18%) that were small town areas, and approximately 30% (or 76 neighbourhoods), were city neighbourhoods in Charlottetown and Summerside.

- Almost half of all Island children aged six and younger lived in rural communities: 47% (or 5495 young children); 31% (or 3,590 young children) lived in the cities of Charlottetown and Summerside; and approximately 22% (or 2610 young children) lived in small towns or villages.

Litter

Map 17 depicts the presence of garbage, litter, or broken glass in the streets, on the sidewalks or in the yards of the neighbourhoods.

Map 15a: Where did children live in relation to traffic patterns on Prince Edward Island?

Community Research in Child Development
Resultats of the Community Mapping Study on PEI, ECDA of PEI, 2001
Source: 1996 Census

Map 15b: Where did the children live in relation to traffic patterns in Charlottetown?

Map 15c: Where did the children live in relation to traffic patterns in Summerside?

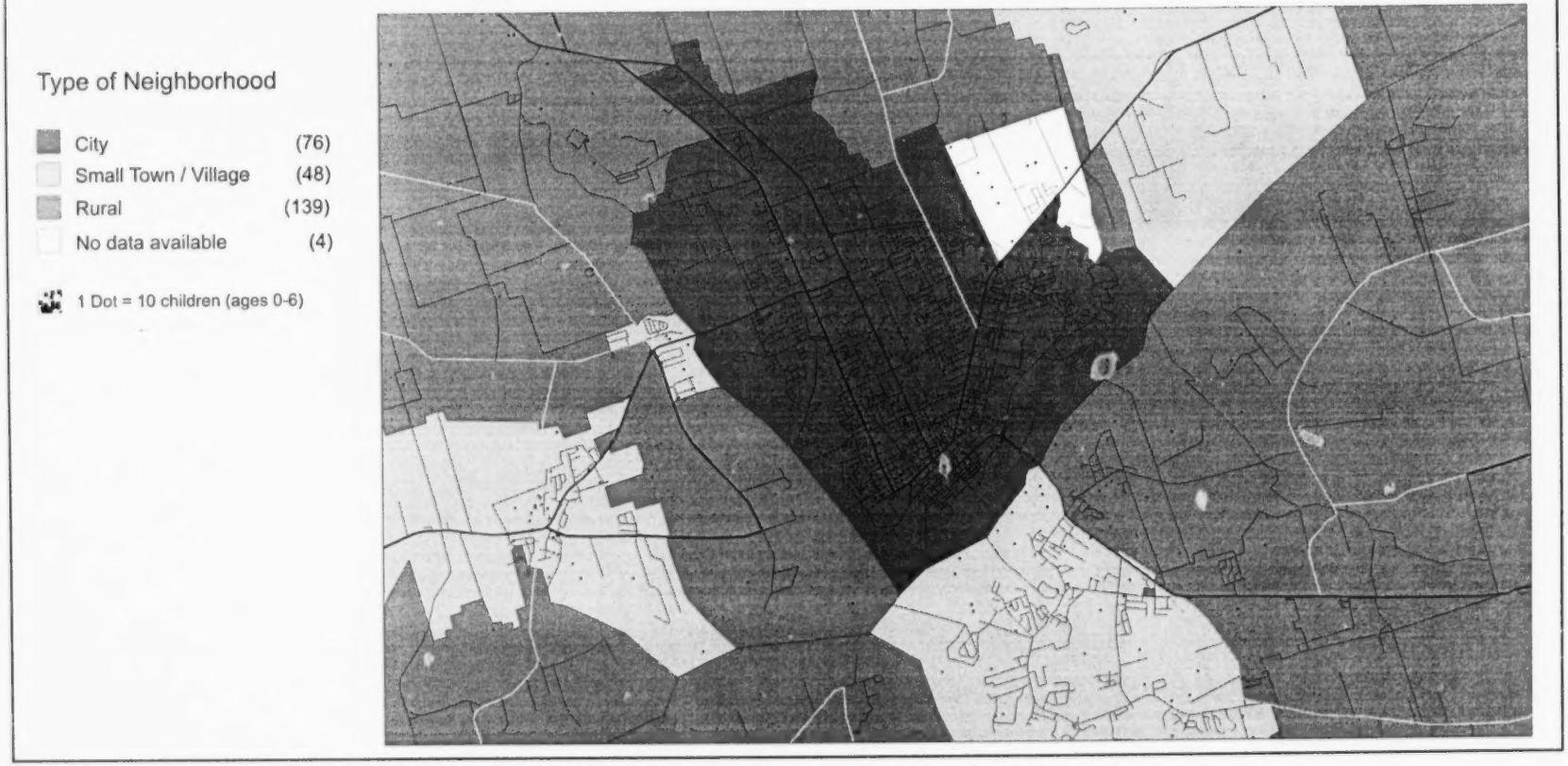
Traffic Volume

- Very Heavy (10 or more cars) (0)
- Moderate (7-9 cars) (76)
- Light (4-6 cars) (48)
- Very Light (0-3 cars) (143)

Map 16a: What type of neighborhoods do children live in PEI?

Community Research in Child Development
Resultats of the Community Mapping Study on PEI, ECDA of PEI, 2001
Source: 1996 Census

Map 16b: What type of neighborhoods do children live in Charlottetown?



Map 16c: What type of neighborhoods do children live in Summerside?

Map 17 - Which areas had the most litter present?

- Garbage and litter were found in only a small proportion of the neighbourhoods. None of the neighbourhoods had "quite a lot of litter," the highest rating on this scale.
- More than half of the EAs (54%) had no signs of litter, garbage or broken glass.
- The cities of Charlottetown and Summerside had the most amount of litter present. These were also the areas where the highest density of children aged six and younger live.

Just over 12 percent of the neighbourhoods were rated as having "quite a lot of garbage" or "garbage almost everywhere." Some densely populated areas, particularly in the western and southeastern sides of the community, had higher proportions of neighbourhoods where litter was observed.

Putting it all together: Creating a physical environment scale

Young children's physical environments, including conditions such as overcrowding and poor-quality housing, can have a significant impact on their health and well-being. For example, children living in poorer environments are more likely to live in homes that are deteriorating or in need of major repairs (Ross, Scott, & Kelly, 1999).

Assessing the physical environments and characteristics of neighbourhoods is an aspect of community research that is often overlooked, partially because of the operational difficulties involved in collecting such information. Therefore, a consolidated measure of the physical characteristics of neighbourhoods has been developed called the Physical Environment Scale. Based on factors that have been postulated to have an impact on children's outcomes, this measurement can provide useful information for communities. The Physical Environment Scale, measuring the overall physical environment of PEI, was developed using the following neighbourhood characteristics:

- Conditions of the buildings;
- Percentage of dwellings in need of repair;
- Volume of traffic on the streets or roads;
- Presence of garbage, litter, or broken glass;
- Noise levels;
- Number of stop lights observed; and
- Number of lanes in the streets.

Map 18 - What was the overall physical condition of Island neighbourhoods?

- The vast majority of neighbourhoods scored relatively well on the quality of their physical conditions. In fact, over three quarters of Island neighbourhoods received a score of 11 or less on a scale with possible scores ranging from 6 to 24 (lower scores equated with more positive neighbourhood characteristics).
- However, just over 10% of the neighbourhoods were rated as having the least favourable conditions (refer to areas with dark blue shading). Many of these areas also contained a high proportion of children, and had high numbers of potential socio-economic risk factors. No area of the Island scored higher than 20.
- There were areas throughout the rural sections of the Island, as well as in each of the cities that scored very well (refer to the

Map 17a: Which areas of PEI had the most litter present?

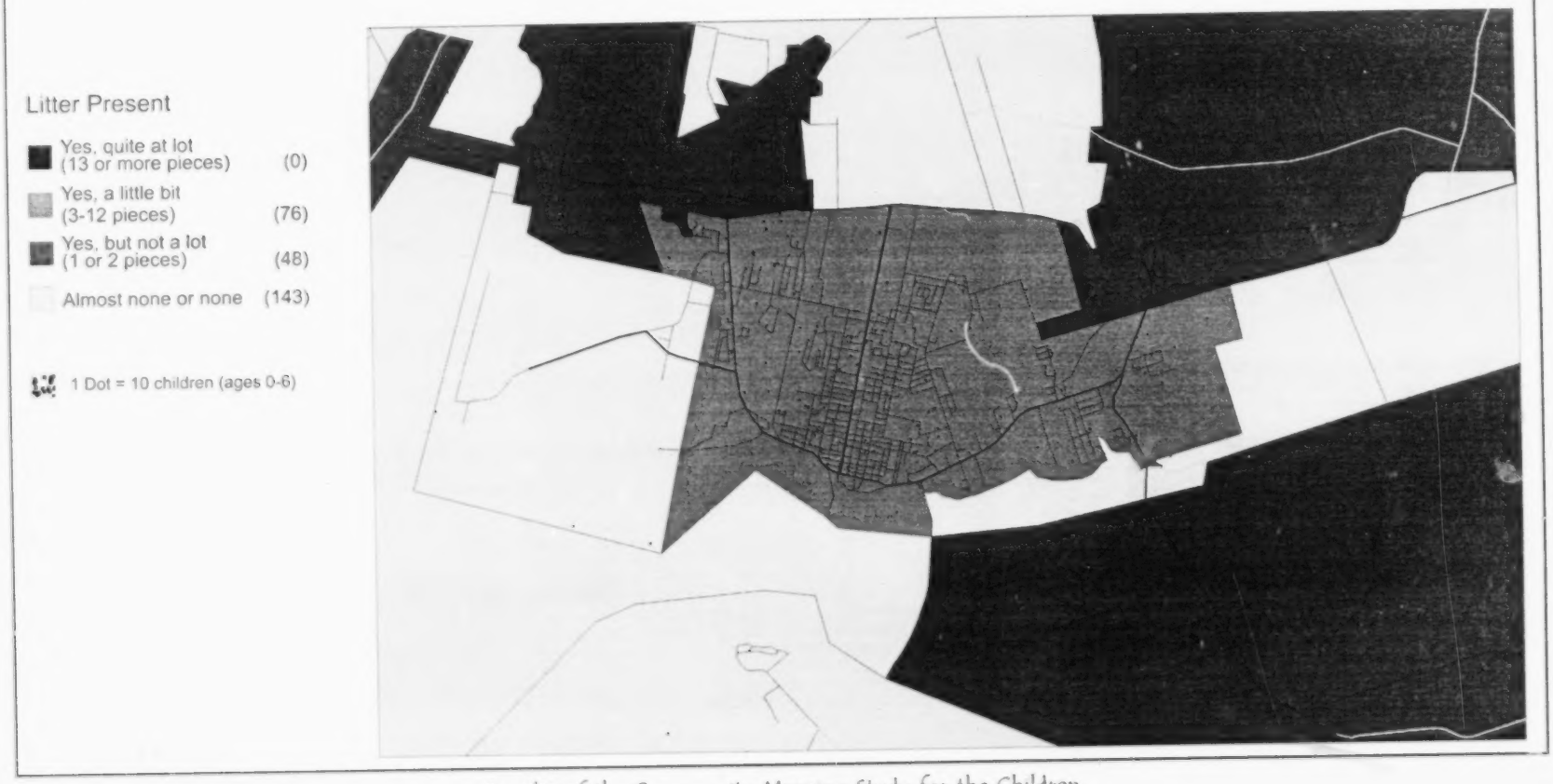
Litter Present
Yes, quite at lot (13 or more pieces) (0)
Yes, a little bit (3-12 pieces) (76)
Yes, but not a lot (1 or 2 pieces) (48)
Almost none or none (143)
1 Dot = 10 children (ages 0-6)
N
W
E
S

Community Research in Child Development
Resultats of the Community Mapping Study on PEI, ECDA of PEI, 2001
Source: 1996 Census

Map 17b: Which areas of Charlottetown had the most litter present?

Litter Present
Yes, quite at lot (13 or more pieces) (0)
Yes, a little bit (3-12 pieces) (76)
Yes, but not a lot (1 or 2 pieces) (48)
Almost none or none (143)
1 Dot = 10 children (ages 0-6)

Map 17c: Which areas of Summerside had the most litter present?


Litter Present
Yes, quite at lot (13 or more pieces) (0)
Yes, a little bit (3-12 pieces) (76)
Yes, but not a lot (1 or 2 pieces) (48)
Almost none or none (143)
1 Dot = 10 children (ages 0-6)

Map 18a: What was the overall physical condition of Island neighborhoods?

Community Research in Child Development
Resultats of the Community Mapping Study on PEI, ECDA of PEI, 2001
Source: 1996 Census

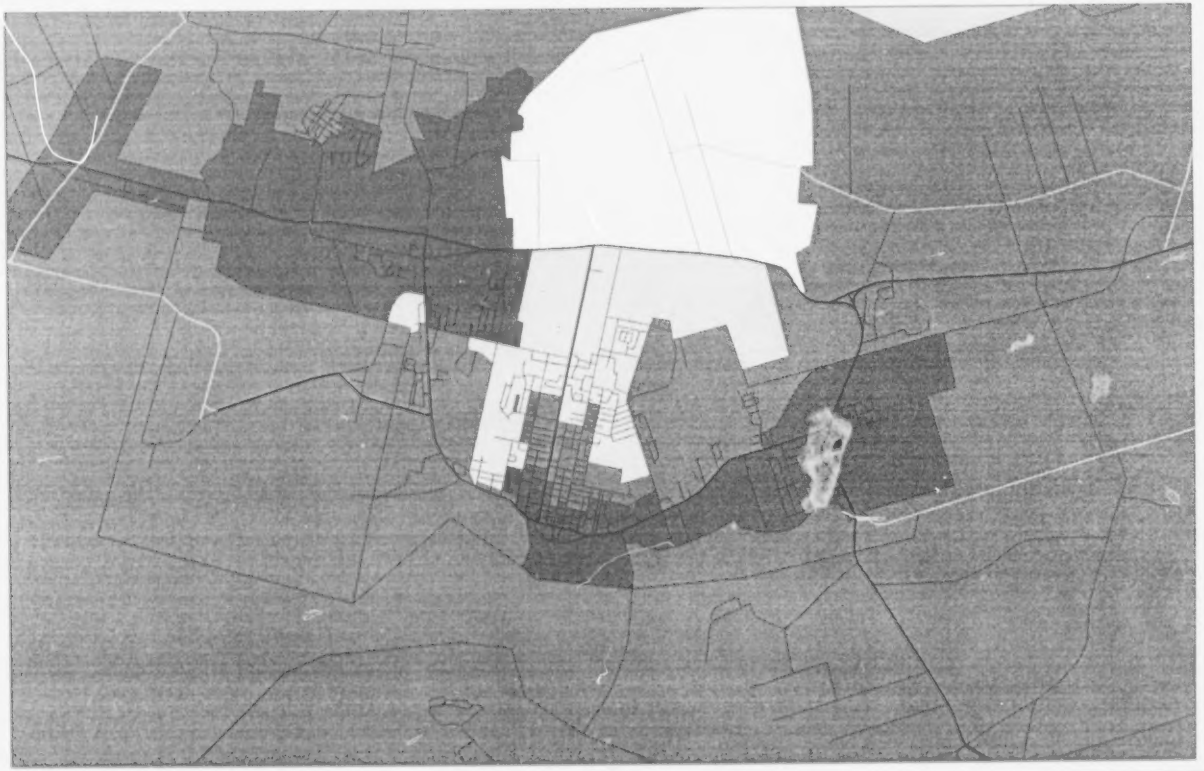
Map 18b: What was the overall physical condition of Charlottetown neighborhoods?

Scores on the Physical Characteristics Score
15 to 26 (poorer score) (27)
12 to 14 (36)
9 to 11 (115)
6 to 8 (better score) (86)
No data available (2)

Map 18c: What was the overall physical condition of Summerside neighborhoods?

Scores on the Physical Characteristics Score

15 to 26 (poorer score)	(27)
12 to 14	(36)
9 to 11	(115)
6 to 8 (better score)	(86)
No data available	(2)



areas with yellow shading). In particular, the western end of the Island had very few areas that scored on the poorer end of the scale, with most areas scoring less than 11.

- While there were some areas in the cities that scored on the poorer end of the scale, these were interspersed with better scoring areas. This was especially evident in Summerside, where a large portion of the city scored very well.

How can the community use this information?

- Most of PEI appears to have good physical environments in which to raise children. However, problem spots may need to be assessed by the community for potential improvement. For example, more cross-walks or stop lights could be added in areas where children need to cross roads to schools, pre-schools or play spaces.

- Broken windows, poor play equipment, and litter can be associated with anti-social behaviours such as graffiti and vandalism. Therefore, community programs – such as litter clean-up, flower boxes, and improved lighting – have the potential to improve PEI's physical environment. An additional benefit of neighbourhood improvement programs is their role in building stronger networks of association and community involvement, including involving children themselves.

V. Neighbourhood Resources

This chapter considers the distribution of resources in the neighbourhoods of Prince Edward Island and discusses the implications of these findings.

Theories based on neighbourhood resources view the community itself as a resource for human development. Resources in the neighbourhood support families and residents by complementing their efforts to raise their children and support their optimal development. By investigating the links between the quality and quantity of services available for children (such as health and social services, parks and recreation, and police services) with the developmental outcomes of children (such as emotional and cognitive development), communities can evaluate the effectiveness of these resources and determine how best to distribute them.

Such theories imply that increased, and appropriate availability of programs and services will lead to an enrichment of experiences, more opportunities for development, access to social networks of support, and fewer chances of developing problems. Scarcity of resources, on the contrary, can result in reduced opportunities for enrichment, lack of supportive environments, and higher need for preventive and corrective action. The provision of services can be expensive and labour intensive, therefore it is essential to ensure that they are effective and contain, overall, the best mix and right coverage of services. (see Jencks & Mayer, 1990, for a review of the theories of neighbourhood influence).

How were services distributed on PEI?

Why ask this question?

A community can help serve its residents by offering a range of programs and services to meet the needs of children. Programs can serve a variety of purposes. For example, they can be:

- Recreational activities (e.g., community sports teams);
- Educational experiences (e.g.,nursery schools); and
- Intervention programs for when problems occur (e.g. family counselling services).

These programs may offer opportunities to increase one's quality of life through a learning or recreational experience, while at the same time increasing access to social networks of support.

Five program categories considered important to child development outcomes were examined:

1. Education;
2. Societal;
3. Health services;
4. Sports and recreation;
5. Entertainment and culture.

A community researcher in PEI first created an inventory of programs,[2] then contacted as many of the agencies as possible offering programs throughout the province to collect information about: the types of services they offered; the intended recipients; barriers to participation; and areas of concern. (Refer to Appendix E for a detailed description of the design and results of the community program survey).

[2] This inventory represents a first step by the community to learn more about the resources it has available. The database should be updated on a regular basis to ensure its completeness.

The maps created for this chapter of the report are based on the results of the inventory of programs and services conducted on PEI. Resources were mapped according to their classification by the community researcher. Often maps were generated specifically for Charlottetown and Summerside because these two urban centres include higher densities of people and consequently, contain EA's with much smaller land areas. As well, while all resources appear in the community where they are located, only resources in Charlottetown and Summerside were placed on or near their street location. If a specific street location was not known for a resource in either of those two communities, it was placed randomly in that community.

Educational resources

Three potential types of educational resources can support children's development. They are:

- ❖ Resources targeted directly to children (such as Early Childhood Care and Educational (ECCE) Programs and kindergartens);
- ❖ Resources targeted to parents or families (such as parenting programs, pre-natal programs and family support programs); and
- ❖ Community-based resources available to all residents (such as libraries, and community centres).

Map 19 – On PEI, where were the programs located that provided services to children aged six and younger?

- ♦ On Prince Edward Island, there were approximately 159 organizations that provided over 279 programs for children in the preschool years. These organizations included Early Childhood Centres, Family Resource Centres, as well as community organizations that provided arts and recreation programs, and provincial organizations that provided health and library programs.
- ♦ More than 50% of these organizations were located in the Charlottetown Area.

A child's readiness to learn at entry to formal schooling is an important indicator of his or her future academic and social success, which in turn can influence his or her life-long prospects for employment and financial security. Educational programs for young children that enhance their physical, social, emotional and cognitive development help provide the foundation for later learning. (Doherty, 1997).

Early childhood care and education resources

For some children, attendance at ECCE programs may be their first exposure to a structured learning environment. Early childhood care and education refers to a variety of programs that are typically available to children and their families between the ages of infancy and school entry. On Prince Edward Island, the range of early childhood care and education programs may include:

- ♦ Multi-age Early Childhood Centres, which may offer child care, playschool, nursery school and/or kindergarten programs
- ♦ Drop-in playgroups
- ♦ Pre-schools / Nursery Schools
- ♦ Kindergartens

Map 19a: Where are the organizations that provide programs for children age 0-6 located in PEI?

Community Research in Child Development
Resultats of the Community Mapping Study on PEI, ECDA of PEI, 2001
Source: 1996 Census

Map 19b: Where are the organizations that provide programs for children age 0-6 located in Charlottetown?

Map 19c: Where are the organizations that provide programs for children age 0-6 located in Summerside?

A Comprehensive Early Childhood System on PEI

Participation in learning-based pre-school programs can lead to achievement gains and, in some cases, gains in self-esteem, motivation and social behaviour (Westchester Institute For Human Services, 2000). Kindergarten programs also have the potential to increase a child's readiness for learning, thereby enhancing his or her lifelong academic and personal development. However, in order for these programs to be effective in helping children achieve their optimal potential, they need to be developmentally appropriate and responsive to the experiences, backgrounds and needs of the students (Doherty, 1997).

Our Province is working towards an integrated continuum of services and programs that support early child development, and also support parents in balancing work and family responsibilities. PEI has a community-based system of early childhood care and education programs that includes licensed full-day child care programs, half-day kindergarten and nursery programs, family day care homes and school age child care programs. In addition, PEI has a number of family resource centres offering children's programs at the centre and in neighbouring communities, such as parent and tot drop-in play groups.

Kindergarten

In September 2000, the Province of Prince Edward Island implemented a new, publicly funded, community based kindergarten system. Kindergarten programs on PEI are unique in that they are community based, have low staff child ratios (1:12) and are taught by early childhood educators.

This new system supports the integration of child care and kindergarten programs, thus allowing children to participate in developmental programs without having to move from program to program during the day. In other words, kindergartens on PEI are designed and operated to reflect the needs of children and the community. A kindergarten may be one program of many within a larger, multi-age child care centre, or it may be an age-specific program developed to meet the needs of a community.

The Provincial Department of Education has the lead responsibility for the new kindergarten program. The Department of Education oversees parent fees, curriculum development and support, and communication within government and with the community.

The Department of Health and Social Services is also involved in the kindergarten program, responsible for licensing, staff certification, and supports for children with special needs.

Map 20 – Where were the kindergarten programs located on PEI?

- Approximately 91 kindergartens were located in PEI, primarily clustered around the more densely populated communities.
- Approximately 35 kindergarten programs were offered in multi-age early childhood centers.

Map 21 – Where were the playschool / nursery school programs located on PEI?

- There were 33 pre-school and nursery programs in PEI.
- The majority of these programs were located in Queens County, the central portion of the Island.

Map 20a: Where were the kindergarten programs located on PEI?

Community Research in Child Development
Resultats of the Community Mapping Study on PEI, ECDA of PEI, 2001
Source: 1996 Census

Map 20b: Where were the kindergarten programs located on Charlottetown?

Map 20c: Where were the kindergarten programs located on Summerside?

Map 21: Where were the playschool / nursery school programs located on PEI?

Number of Children
Age 0-6 per EA
110 to 190 (17)
60 to 109 (66)
10 to 59 (114)
0 to 9 (70)
Playschools / Nursery Schools
Community Research in Child Development
Resultats of the Community Mapping Study on PEI, ECDA of PEI, 2001
Source: 1996 Census

Childcare

Social and demographic changes have resulted in a growing demand for non-parental care, making childcare an invaluable resource to many families. Quality childcare can play an important role in child development by providing educational, learning, and socializing experiences for the child.

Map 22 – Which areas of PEI had the greatest access to child care?

- There were 62 multi-age early childhood centres that offered child care on PEI.
- Over half of the child care programs were located in the Greater Charlottetown Area.

Early Childhood Care and Education Programs on PEI

PEI Department of Health and Social Services is responsible for regulation of the industry through the Child Care Facilities Act (1988) as administered through the Child Care Facilities Board (CCFB).

- In 2000, there were approximately 4300 spaces in licensed early childhood centres and over 400 staff with differing levels of education and training, and who hold both full-time and part-time positions.

Parent and family focused educational resources

Resources that support families with young children on PEI include:

- Prenatal Programs;
- Parenting Programs;
- Parent Support Groups;
- Teen Parenting Programs;
- Family Management and Support Programs.

Positive parenting practices have been related to increased pro-social behaviours in children and a decreased likelihood of behavioural problems (Chao & Willms, 1998). The literature also suggests that parenting and life skills training for adults can serve as a protective factor, thereby decreasing a child's risk for problems (Harachi, Catalano, & Hawkins, 1997).

With the majority of parents in PEI and Canada involved in the workforce, supports that assist parents in balancing work and family responsibilities are necessary to ensure the quality and degree of parental involvement. In consultations held across PEI in 1999/2000, the Healthy Child Development Advisory Committee heard the following from parents:

...parents told us that they wanted to do their best in raising their children, but that from time to time they needed help, either in the form of information about child development, information and assistance with difficulties (e.g., dealing with temper tantrums), support through times of family crisis, and help in balancing the competing demands on their time. Many parents told us that they needed help in finding and affording good child care, so that they could maintain their employment, and feel confident that their children were happy and safe (For Our Children, 2000, pp. 114-115).

Map 23 – Where were the Family Resource Centres and Parent and Tot Drop-in Play Programs in PEI?

In total, there were 143 programs and services available in PEI for parents and caregivers.

Map 22a: Which areas of PEI had the greatest access to child care?

Community Research in Child Development
Resultats of the Community Mapping Study on PEI, ECDA of PEI, 2001
Source: 1996 Census

Map 22b: Which areas of Charlottetown had the greatest access to child care?

Number of Potential Risks Present out of 9
7 or more (10)
5 or 6 (36)
3 or 4 (92)
2 or fewer (58)
No data available (71)
Early Childhood Centres that provide child care programs

Map 22c: Which areas of Summerside had the greatest access to child care?

Number of Potential Risks Present out of 9
7 or more (10)
5 or 6 (36)
3 or 4 (92)
2 or fewer (58)
No data available (71)
Early Childhood Centres that provide child care programs

Map 23a: Where were the Family Resource Centres and Parent and Tot Drop-in Play Programs on PEI?

Community Research in Child Development
Resultats of the Community Mapping Study on PEI, ECDA of PEI, 2001
Source: 1996 Census

Map 23b: Where were the Family Resource Centres and Parent and Tot Drop-in Play Programs on Charlottetown?

Number of Potential Risks Present out of 9
7 or more (10)
5 or 6 (36)
3 or 4 (92)
2 or fewer (58)
No data available (71)
Drop-in Play Program
Family Resource Centres

Map 23c: Where were the Family Resource Centres and Parent and Tot Drop-in Play Programs on Summerside?

Number of Potential Risks Present out of 9
7 or more (10)
5 or 6 (36)
3 or 4 (92)
2 or fewer (58)
No data available (71)
Drop-in Play Program
Family Resource Centres

- PEI had 9 family resource centres and 25 parent and tot drop-in programs.
- The 9 Family Resource Centres (seven of them funded by Health Canada) provided over 65 of the 143 available programs and services for parents and caregivers, through their centre and outreach services.
- Family Resource Centres were located in each of the five health regions in PEI, including three in Queens County. Most of these centres also had outreach programs to extend their services to neighbouring, smaller communities.
    - A Francophone Family Resource Centre was located in Wellington, west of Summerside, and a Mi'Kmaq Family Resource Centre was located in Charlottetown.
    - While PEI's Family Resource Centres were ensuring that programs were offered in each region across PEI, transportation to and public awareness of the programs that were offered remains a barrier. As well, the majority of programs remain based in the Charlottetown Area, limiting access outside of the capital city region.

Map 24 – Which areas of PEI had the greatest access to parenting programs and family resources?

- PEI had 17 organizations that provided pre-natal programs, and 50 organizations that provide parenting classes and programs.
- In addition, there were 30 organizations that provided family management and support programs, including stress and money management, family relationship workshops, and respite care programs.
- These parenting programs and family resources were generally located in the more populated communities across PEI. Therefore, a number of families living in rural PEI would have to travel quite a distance to access any programs.

Community-focused educational resources

Research suggests that children growing up in families in which the parents have low literacy skills are more likely to have problems in reading and math. When low literacy skills are coupled with other indicators of disadvantage, such as lower parental educational attainment, and lower family income, the negative relationship with child outcomes is even stronger (National Institute of Adult Education: Adult Literacy and Basic Skills Unit, 1993). Studies also have shown positive gains for adults who participate in literacy programs (e.g., further education, higher income, employment gains, and increased interest in their child's schooling (Beder, 1999).

Map 25 – Which areas of PEI had the greatest access to libraries and toy/equipment exchanges?

- Prince Edward Island had 41 libraries and 8 toy lending libraries / equipment exchanges.
- Libraries were found in communities across PEI, including areas where the density of children was high, and in areas with high and low levels of risk factors.
- Most of the toy lending libraries and equipment exchanges were located in Family Resource Centres. There were 3 in Prince County, 2 in Kings County, and 3 in Charlottetown. No toy lending libraries were available in Queens County.

Map 24a: Which areas of PEI had the greatest access to parenting programs and family resources?

Community Research in Child Development
Resultats of the Community Mapping Study on PEI, ECDA of PEI, 2001
Source: 1996 Census

Map 24b: Which areas of Charlottetown had the greatest access to parenting programs and family resources?

Number of Families with Children
200 to 310 (17)
100 to 199 (92)
1 to 99 (133)
No data available (25)
Organizations that provide family support and management services
Organizations that provide prenatal programs
Organizations that provide parenting programs

Map 24c: Which areas of Summerside had the greatest access to parenting programs and family resources?

Number of Families with Children
200 to 310 (17)
100 to 199 (92)
1 to 99 (133)
No data available (25)
Organizations that provide family support and management services
Organizations that provide prenatal programs
Organizations that provide parenting programs

Map 25a: Which areas of PEI had the greatest access to libraries and toy/equipment exchanges?

Community Research in Child Development
Resultats of the Community Mapping Study on PEI, ECDA of PEI, 2001
Source: 1996 Census

Map 25b: Which areas of Charlottetown had the greatest access to libraries and toy/equipment exchanges?

Number of Potential Risks Present out of 9
7 or more (10)
5 or 6 (36)
3 or 4 (92)
2 or fewer (58)
No data available (71)
Toy Lending Library/ Equipment Exchange
Library

Map 25c: Which areas of Summerside had the greatest access to libraries and toy/equipment exchanges?

Number of Potential Risks Present out of 9
7 or more (10)
5 or 6 (36)
3 or 4 (92)
2 or fewer (58)
No data available (71)
Toy Lending Library/ Equipment Exchange
Library

Societal resources

Social housing

Access to affordable, safe and quality housing is one of the most fundamental needs common to all Canadians. At the same time, many families face difficulties in finding such housing, when they must spend an increasing proportion of their income on shelter. Guidelines set out by the Canada Mortgage and Housing Corporation note that a family has experienced a housing affordability problem when one-third or more of their household income is spent on shelter costs. In 1996, approximately 30% of all Canadian families renting their home spent one-third or more of their income on housing, with this burden falling heaviest upon young families and those headed by lone-parents (Canadian Council on Social Development, 1998). This trend has increased over the past decade, particularly among lone-parents.

With one-third of renting families in Canada over-burdened with shelter costs, the availability of community social housing is key to addressing the fundamental need of families for affordable, safe and quality housing.

With one-third of renting families in Canada over-burdened with shelter costs, the availability of community social housing is key to addressing the fundamental need of families for affordable, safe and quality housing.

Map 26 - Where were the Family Housing Program units and organizations that provide housing programs located on PEI?

- There were 9 Family Housing Boards in communities throughout the province, containing 453 housing units.
- The majority of the units were located in the more densely populated areas of Charlottetown and Summerside: Charlottetown had 167 units, and Summerside had 100 units.
- Although the majority of organizations that provided social housing programs were located in Charlottetown, social housing organizations were found in each region of PEI. These included organizations that provided financing and organizations that provided temporary shelter and care.

Community centres for the benefit of all residents

Community services, such as community centres, are beneficial to all residents. Programs based in community centres provide an important opportunity for children to learn social and other skills through interaction with their peers, and through instruction or mentoring by adults. Almost two-thirds of all children and 80% of low income children rarely participate in clubs or group programs such as those offered at community centres (Ross & Roberts, 2000). Barriers to accessing community centres, such as cost and transportation, may be responsible for their lower rates of use.

Map 27 - Which areas of PEI had the greatest access to community and recreation centres?

- Prince Edward Island had a network of 35 community centres for the use and benefit of its 138,900 residents.
- The community centres were located throughout the province, including in areas with high densities of families with children.
- While many of the neighbourhoods on PEI with a high proportion of lone parents had

Map 26: Where were the Family Housing Program units and organizations that provide housing programs located on PEI?

Community Research in Child Development
Resultats of the Community Mapping Study on PEI, ECDA of PEI, 2001
Source: 1996 Census

Map 27: Which areas of PEI have the greatest access to community and recreation centres?

Community Research in Child Development
Resultats of the Community Mapping Study on PEI, ECDA of PEI, 2001
Source: 1996 Census

access to community centres, there were pockets where this was not the case.

Health services

Medical Services

Is there a relationship between the distribution of physicians and the characteristics of a community? A recent study (Krishnan, 1997) found that the distribution of physicians and specialists depended on certain socio-demographic factors within communities:

- Family physicians or general practitioners were most likely to be found in metropolitan areas with a high percentage of residents who were highly educated.
- Family physicians or general practitioners were less likely to be located in areas with a high proportion of the population under age five.
- Specialist physicians were more likely to be found in large population areas with a higher percentage of university-educated residents, and in areas with a lower percentage of children and lower percentage of owner-occupied dwellings (Krishnan, 1997).

Map 28 – Where were the medical clinics located on PEI?

- In PEI, 17 of the 36 medical clinics were located in Charlottetown, where the majority of medical clinics for Queens County were located. Most of the specialists also were located in Charlottetown.
- Medical clinics were more widely distributed in Prince County than in Queens County, while there were only a few clinics located in Kings County.
- In many areas of rural PEI, families must travel to access a medical clinic.

Emergency health services – hospitals and ambulance stations

Does the number of hospitals or ambulances in the community have an impact on the health of its residents? More research is needed to help determine the impact of the distribution of health care services in the community on utilization rates and overall population health.

Map 29 - Where were emergency health services located in PEI?

- Similar to the distribution of medical clinics, the largest hospital on the Island was located in Charlottetown, and this was the only community in Queens County that had a hospital.
- There were more hospitals in Prince County than in the other regions, with 4 in Prince County and 2 hospitals located in Kings County.
- There were 7 ambulance stations across PEI: 3 were in Prince County, 2 in Queens County and 2 in Kings County.
- There were many areas of rural PEI that had no ambulance station or hospital in close proximity.
- The communities that contained hospitals and ambulance stations appeared to be surrounded by neighbourhoods that had a range of socio-economic characteristics.

Preventative Health Services

Good health – a state in which children are physically, emotionally, and spiritually as healthy as possible, with strong self-esteem, coping skills and enthusiasm – is one of the broad goals identified in Prince Edward

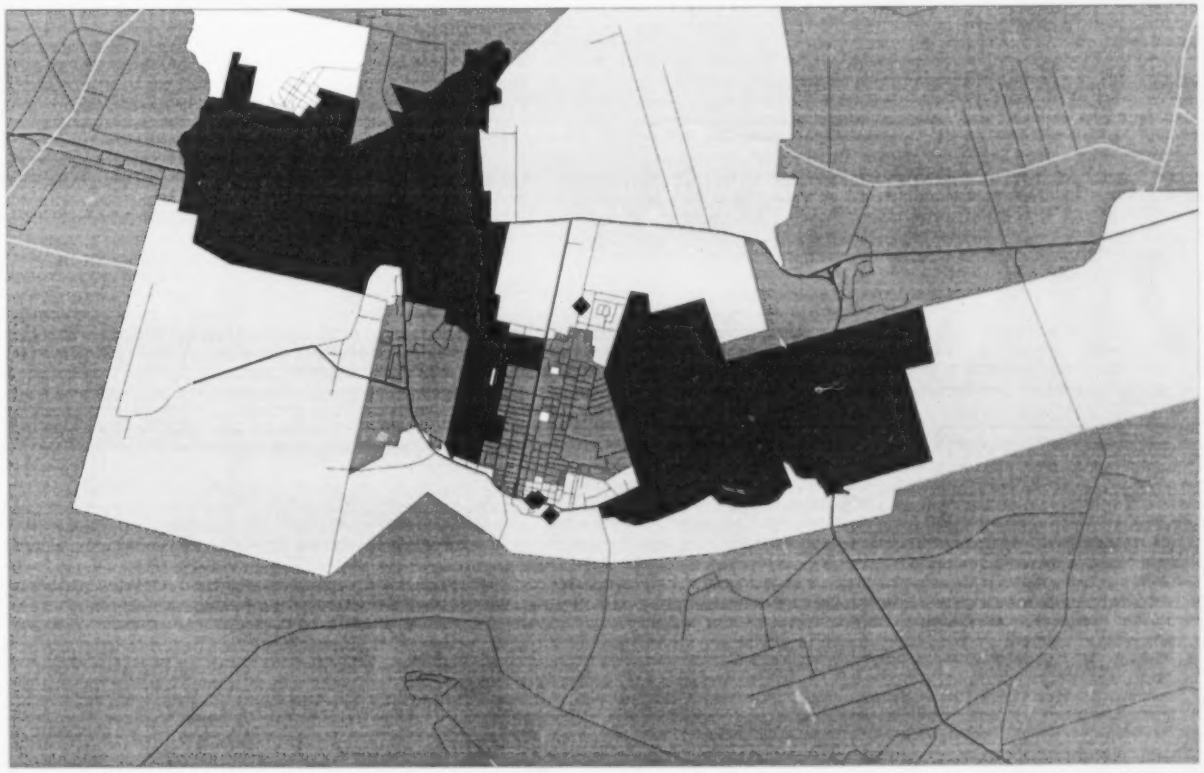
Map 28a: Where were the medical clinics located on PEI?

Community Research in Child Development
Resultats of the Community Mapping Study on PEI, ECDA of PEI, 2001
Source: 1996 Census

Map 28b: Where were the medical clinics located on Charlottetown?

Number of families per EA
with children at home
200 to 350 (17)
100 to 199 (92)
1 to 99 (133)
No families with children (25)
Medical Clinics

Map 28c: Where were the medical clinics located on Summerside?


Number of families per EA
with children at home
200 to 350 (17)
100 to 199 (92)
1 to 99 (133)
No families with children (25)
Medical Clinics

Map 29: Where were the emergency health services located on PEI?

Community Research in Child Development
Resultats of the Community Mapping Study on PEI, ECDA of PEI, 2001
Source: 1996 Census

Island's Strategy for Healthy Child Development (...For Our Children, 2000). Indicators of health include healthy birth weight for infants, high breastfeeding rates, children demonstrating appropriate developmental milestones, being free of preventable injuries and diseases, having proper nutrition and good mental health (...For Our Children, 2000). Nutritional programs, counselling programs, and public education in communities help to ensure that all children have the best start in life. Furthermore, helping parents to identify problems early on and to gain access to early intervention programs, increases a child's prospects for achieving optimal development.

Poor social environments, those that contain high levels of social and economic inequality, social isolation and a lack of social cohesion, are associated with adverse health outcomes - especially for young developing children. These conditions also make it hard for families to create positive environments for children.

Nutrition, counselling and health promotion programs

The preschool years are a critically important stage of development for children. Thus, issues of food security, adequate nutrition and hunger are of great consequence for children in the preschool age range (Hay, 2000). Past research has shown that nutrition programs have improved outcomes for children (Steinhauer, 1998).

Counselling and mental health services also can be beneficial to all members of the community as preventive and corrective measures. A recent study in the U.S., for example, found that the availability of community-based services has been associated with decreased rates of hospitalization services for children with emotional disturbances (McNulty, Evans, & Grosser, 1996).

Map 30 – Where were the preventative health resources located in PEI?

- In PEI there were 18 organizations that provided nutrition programs. Half of these were located in Charlottetown. Nutrition programs included community kitchens, food banks, cooking classes, and children's nutrition programs. Most of the Family Resource Centres offered nutritional programs in their respective communities across the province.
- There were 17 organizations that provided counselling programs for preschool-aged children and their families. Primarily located in Charlottetown, these organizations provided individual and family counselling, as well as support and intervention programs throughout the province.
- There were 67 organizations that provided health education and prevention and intervention programs. Although the majority of these organizations were located in Charlottetown, these provincial organizations are designed to provide support and education services throughout the province. Health organizations that addressed specific health problems – such as the Canadian Cancer Society and the PEI Lung Association, the community health centres and the Regional Health Authorities – were included in this analysis.
- There were 13 programs that specifically addressed the issue of family violence prevention and education.

Map 30a: Where were the preventative health resources located on PEI?

Community Research in Child Development
Resultats of the Community Mapping Study on PEI, ECDA of PEI, 2001
Source: 1996 Census

Map 30b: Where were the preventative health resources located on Charlottetown?

Number of Potential Risks Present out of 9
7 or more (10)
5 or 6 (36)
3 or 4 (92)
2 or fewer (58)
No data available (71)
Organizations that provide health education, prevention & intervention services
Organizations that provide nutrition programs
Organizations that provide counselling programs

Map 30c: Where were the preventative health resources located on Summerside?

Number of Potential Risks Present out of 9
7 or more (10)
5 or 6 (36)
3 or 4 (92)
2 or fewer (58)
No data available (71)
Organizations that provide health education, prevention & intervention services
Organizations that provide nutrition programs
Organizations that provide counselling programs

Sports and recreational facilities, parks and playgrounds

Ensuring that recreational opportunities are available and affordable is important to a growing child's physical and emotional health, psychosocial skills and improved self-esteem (CCSD, 1998). Children's participation in supervised and unsupervised sports and arts-oriented activities is associated with increased psychosocial development. The presence of good parks and play spaces in children's neighbourhoods has been linked to increased participation rates in supervised and unsupervised sports and arts activities. Children living in more civic neighbourhoods (characterized by factors such as helpful neighbours, safe environments, and the presence of good role models) were more likely to have participated in sports-related activities (Offord, Lipman, & Duku, 1998). As well, a recent study on involvement in sports found that active parents tend to have active children and that families with higher incomes were more likely to have children involved in sports as compared to families with lower incomes (Kremarik, 2000).

Not only is the presence of an outdoor play space important, but the kind and amount of vegetation in the play area (often measured by the number of trees and amount of green space or grass) also makes a difference. Studies have found that adults are more likely to use, and children are more likely to play in, areas with higher vegetation. Nearly twice as many children were observed playing in areas with many trees than were observed in areas with few trees (Coley, Kuo, & Sullivan, 1997; Taylor, Wiley, Kuo, & Sullivan, 1998). In addition, more creative forms of play occur in areas with greater vegetation (Taylor, Wiley, Kuo, & Sullivan, 1998).

Map 31 – Which areas of PEI had the greatest access to recreation facilities?

- Sports facilities seemed to be well distributed on PEI.
- There were 32 arenas across the province; 16 public swimming pools; and 91 sports fields.
- There were many open fields and sports fields for children to play in during the summer. As well, most communities had skating arenas in close proximity. Most of these community facilities offer skating programs for preschool-aged children, and family skate times.

Entertainment and cultural resources

Participation in the arts exposes children to history and culture through a wide range of experiences, and has been positively associated with the presence of good parks, playgrounds and play spaces within a neighbourhood. Dr. Graham Chance, past chair of the Canadian Institute of Child Health, advocated that enrichment in music, the arts and recreation is vital to the development of the emotional and spiritual well-being of children (Campbell, 2000).

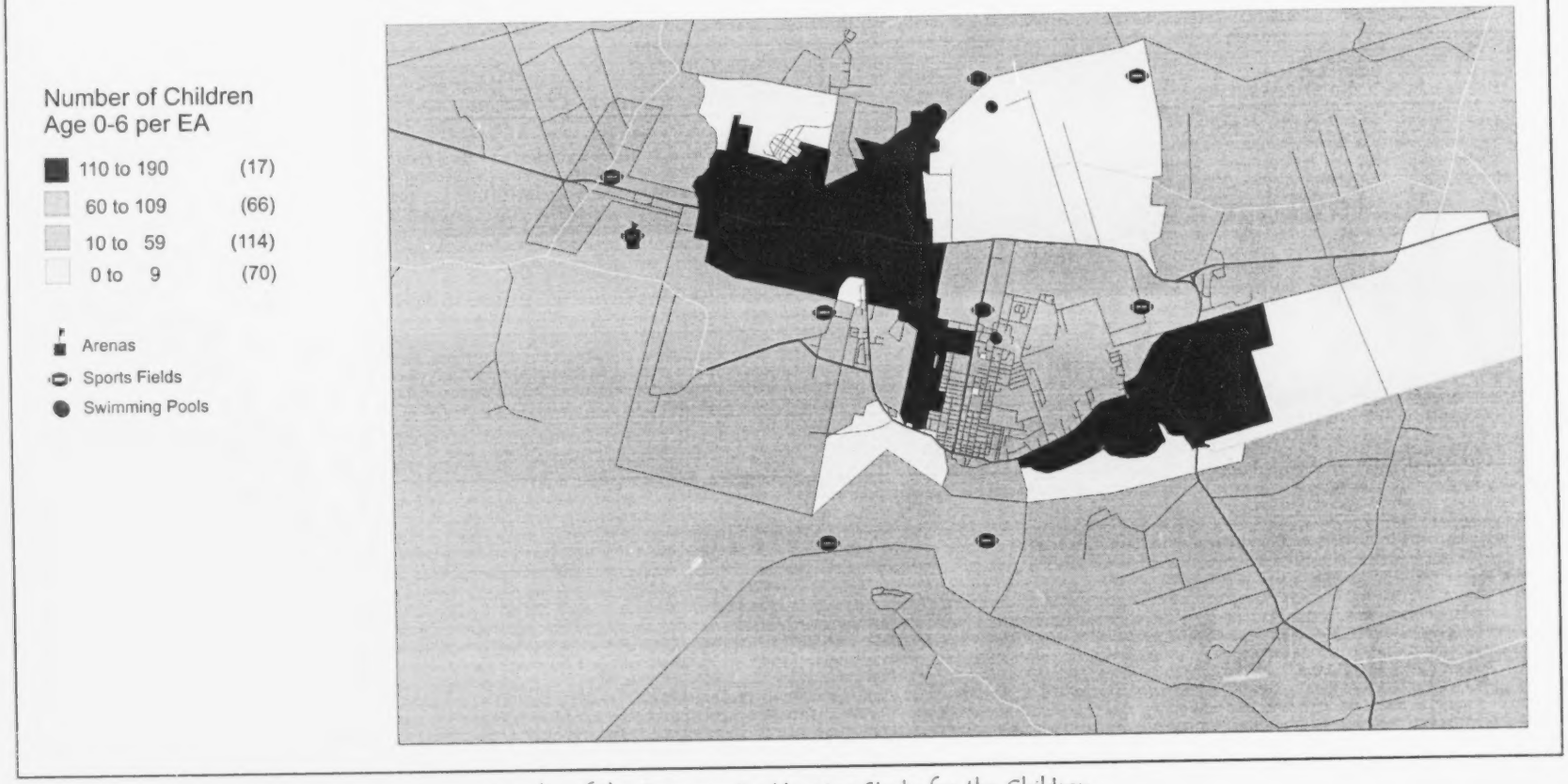
Factors that can be linked to increased participation in extra-curricular arts and cultural activities include both family characteristics (such as income level), and community characteristics (such as the availability of resources). Research demonstrates that children from lower income families participate far less – in fact 26% less – than their higher income counterparts. Children from higher income families have higher participation rates, perhaps because of the cost of equipment, lessons, and the kind of

Map 31a: Which areas of PEI have greatest access to recreation facilities?

Community Research in Child Development
Resultats of the Community Mapping Study on PEI, ECDA of PEI, 2001
Source: 1996 Census

Map 31b: Which areas of Charlottetown have greatest access to recreation facilities?

Map 31c: Which areas of Summerside have greatest access to recreation facilities?



programs themselves (Ross & Roberts, 2000). This discrepancy among income groups in children's participation rates in the arts shows a missed opportunity to improve developmental outcomes.

Map 32 – Where are the arts and recreation programs for children aged six and younger located in PEI?

- There are over 70 arts and recreation programs offered to preschool children.
- The majority of these programs are located in Charlottetown and Summerside. While these two cities do have higher densities of children, there are not as many opportunities for children living in rural PEI to participate in music, dance and craft programs.

Arts and cultural facilities

Map 33 – Where were the art galleries, museums and theatres located in PEI?

- There were approximately 19 art galleries, 51 museums, or heritage centres and 13 theatres and performance spaces in PEI, located throughout the province.
- Many of these resources were located in Queens County, along the northern and southern shore. As well, many of these were seasonal operations

Children who participated in the arts were about 30% less likely to have one or more of the following problems: impaired social relationships, grade repetition, emotional or behavioural disorders. (Offord, Lipman & Duku, 1998).

Map 34 – Where were the community safety and support services located in PEI?

- There were 36 organizations that provided community safety and support services, including crime prevention, cultural and heritage programs, and neighborhood watch.
- There were approximately 38 fire stations and 12 police and RCMP stations in PEI.

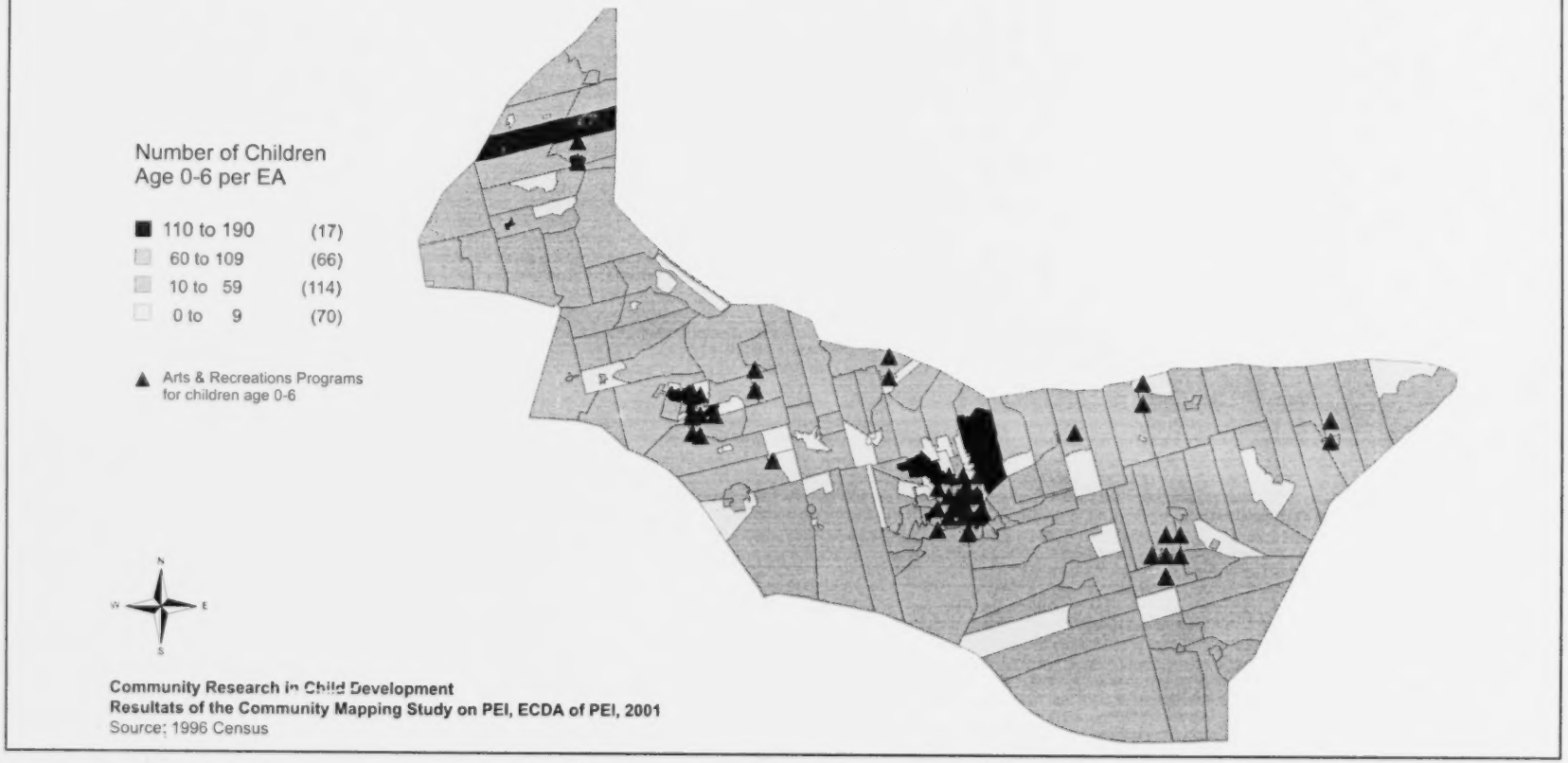
Schools

Schools are one of the most important resources in a community for children and families. Schools are more than educational facilities – they are a public space used by children, teachers, parents and the community at large.

Map 35 – Where were the public schools located in PEI?

- There were 68 elementary, junior high and high schools in Prince Edward Island.
- There were also 5 French language schools, located in Prince and Queens Counties.

Map 32a: Where were the arts and recreation programs for children age 0-6 located on PEI?

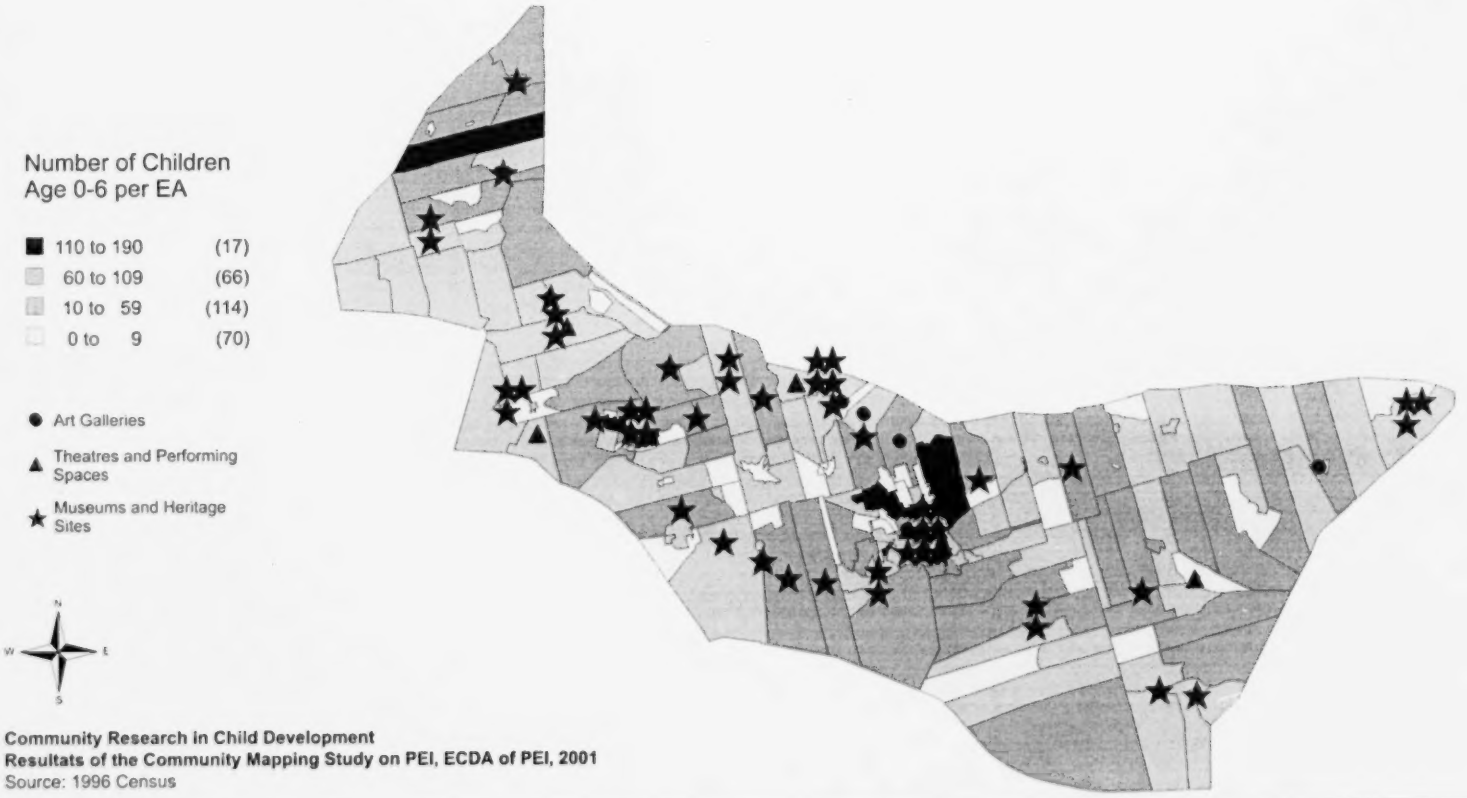


Community Research in Child Development
Resultats of the Community Mapping Study on PEI, ECDA of PEI, 2001
Source: 1996 Census

Map 32b: Where were the arts and recreation programs for children age 0-6 located on Charlottetown?

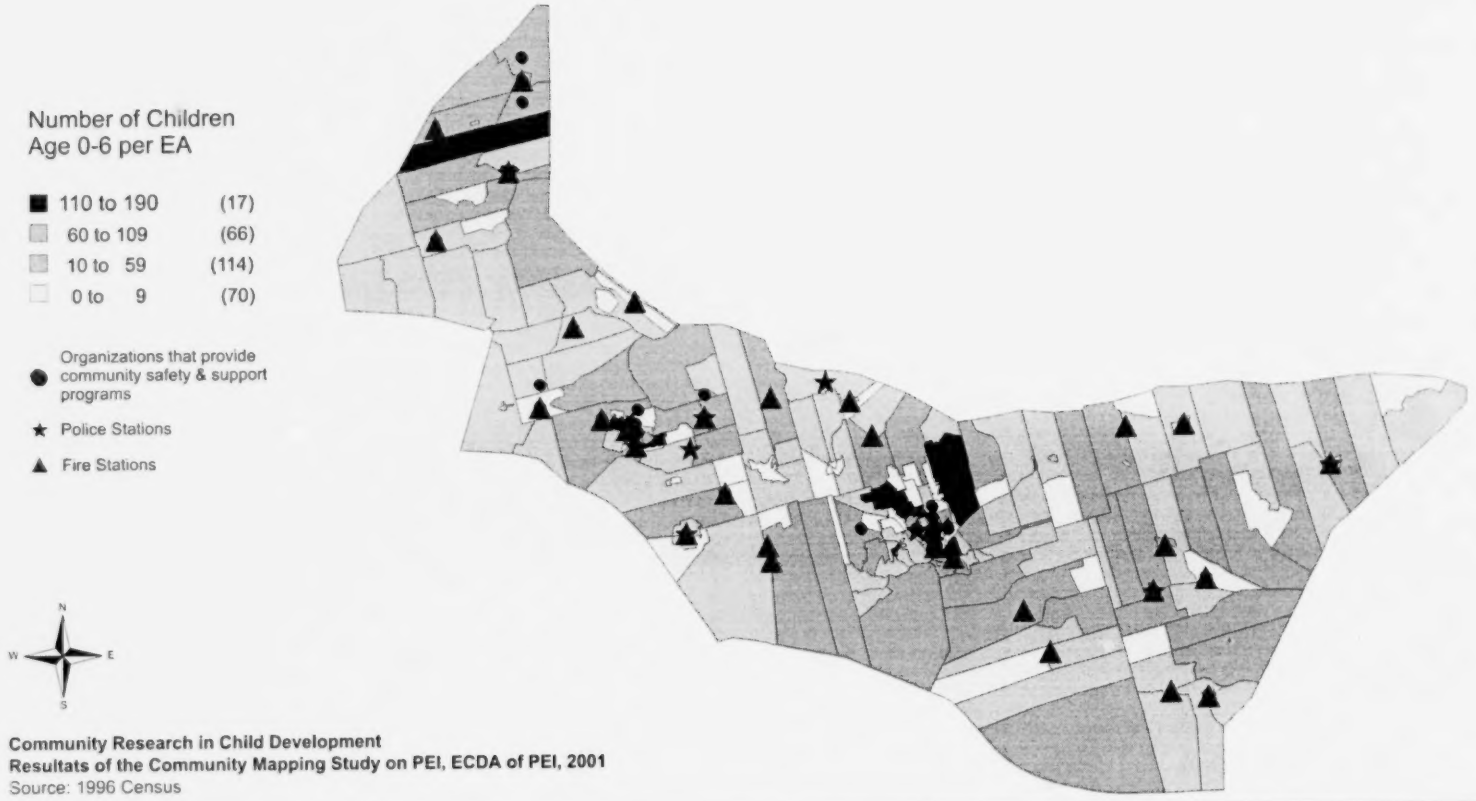
Map 32c: Where were the arts and recreation programs for children age 0-6 located on Summerside?

Map 33: Where were the art galleries, museums and theatres located on PEI?



Community Research in Child Development
Resultats of the Community Mapping Study on PEI, ECDA of PEI, 2001
Source: 1996 Census

Map 34: Where were the community safety and support services located on PEI?



Community Research in Child Development
Resultats of the Community Mapping Study on PEI, ECDA of PEI, 2001
Source: 1996 Census

Map 35: Where were the Public Schools located on PEI?

Community Research in Child Development
Resultats of the Community Mapping Study on PEI, ECDA of PEI, 2001
Source: 1996 Census

Appendix A: The Early Childhood Development Association of PEI

The Early Childhood Development Association of Prince Edward Island (ECDA of PEI) has provided a collective voice for Early Childhood Care and Education professionals in the province for the last twenty-five years. The Early Childhood Development Association of PEI is a non-profit organization, incorporated in 1974. This provincial organization is made up of four smaller organizations, regionally based throughout the province. The Provincial Executive Committee includes the members of each of the regional executive committees.

Goals of the ECDA:

- To provide and exchange information with parents, the public and professionals concerning the education and care of young children.
- To provide information, facilitate communication and develop professionalism within the membership.
- To support the activities of other organizations concerned with young children.

Membership in the ECDA consists of people involved or interested in early childhood development on PEI. They include owners and operators of licensed early childhood facilities, professionals working in related fields, teachers, and parents. The ECDA has a base of approximately 400 members who adhere to the ECDA's mission statement and goals:

Mission Statement:

The Early Childhood Development Association of Prince Edward Island is a provincial non-profit organization committed to promoting physical, emotional, social, cognitive and creative development of young children.

The ECDA promotes the adherence to professional guidelines of early childhood educators and increases their skills through information sharing, workshops, conferences and other educational opportunities. As well, the ECDA is affiliated with the Canadian Child Care Federation (CCCF), connecting ECDA members to current information and research related to the profession from a national perspective.

Historically, the ECDA has had a well established cooperative and collaborative relationship with the Department of Health and Social Services, the Department of Education and the PEI Child Care Facilities Board. Members have worked with the P.E.I. Child Care Facilities Board over the years to develop regulations and policies in order to provide quality child care services for children while their parents contribute to the Island economy through employment, training and community endeavors. This relationship remains strong and active as our provincial government works to promote healthy development for Prince Edward Island's children.

Members of the ECDA were instrumental in:

- successfully advocating for the first child care legislation in the province of PEI;
- consulting with government on regulations and guidelines to the Child Care Facilities Act;

- the community consultation phase in the development of Health Canada's Community Action Program for Children which has resulted in the development of seven family resource centres throughout the province; and
- the development of a community based, publicly funded kindergarten system.

The ECDA works in collaboration with other non profit organizations in the province, and has partnered (and continues to partner) in a significant way in a number of multi-sectoral initiatives:

- child sexual abuse protocols (partnership with police, Premier's Action Council on Family Violence and others);
- family literacy;
- children's mental health framework and coalition;
- CAPC Family Resource Centres;
- Child Find PEI;
- PEI Tobacco Reduction Strategy.

In 1999 and 2000, the ECDA had representation on, and chaired the Healthy Child Development Advisory Committee, mandated by the provincial government to develop a comprehensive strategy for healthy child development on PEI. This initiative integrated the work of five government departments and community organizations across the Island, and was presented to government in November 2000. Other members on the Advisory Committee included representatives of the Departments of Health and Social Services, Education, Community and Cultural Affairs, Development, and Attorney General, along with health regions and schools. The ECDA's long term commitment to early childhood activities, leadership in the development of a province wide strategy for children, and history of working with the Provincial Government have had an impact on the healthy development of Island children.

Appendix B:
Supplementary Maps

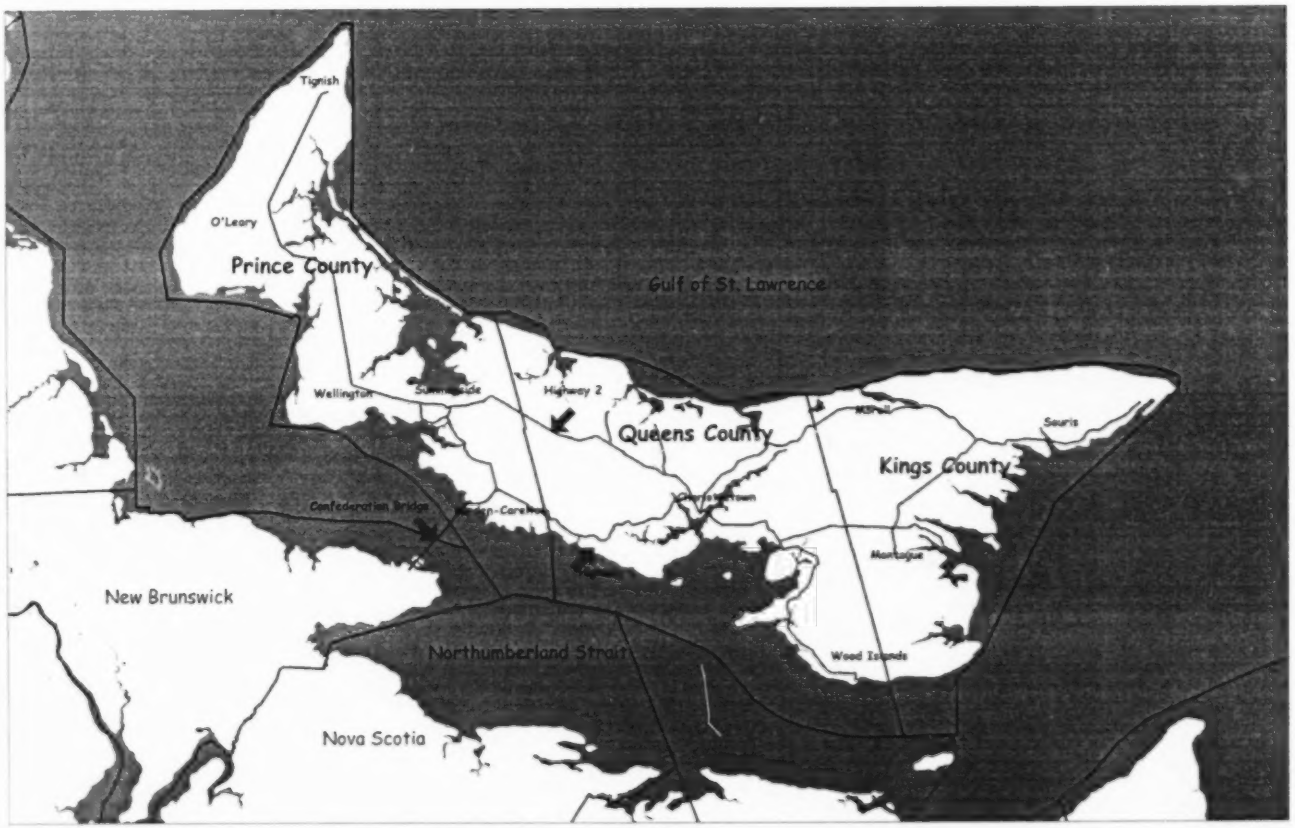
Map S1: Prince Edward Island

Map S2: Charlottetown

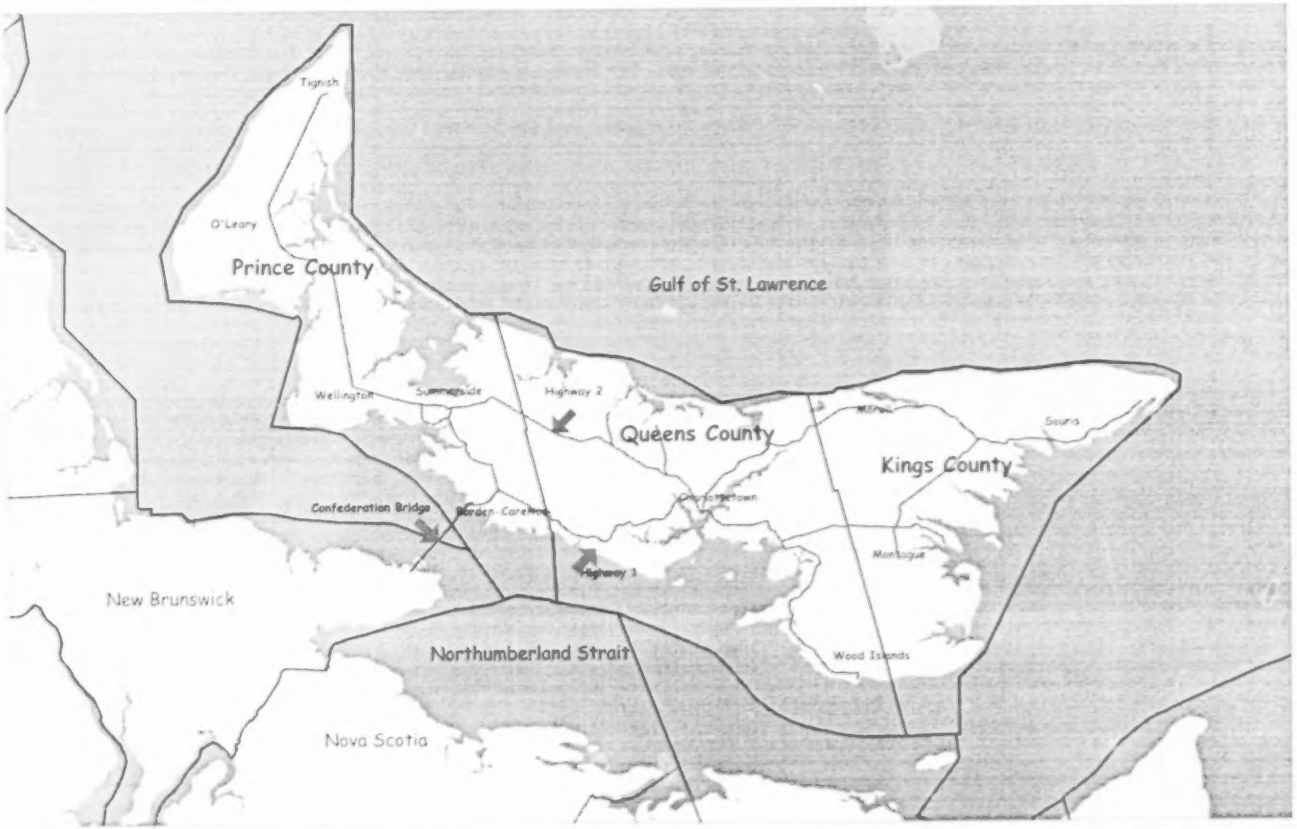
Map S3: Summerside

Supplementary maps of Prince Edward Island, Charlottetown and Summerside were created to show the main highways and communities in PEI.

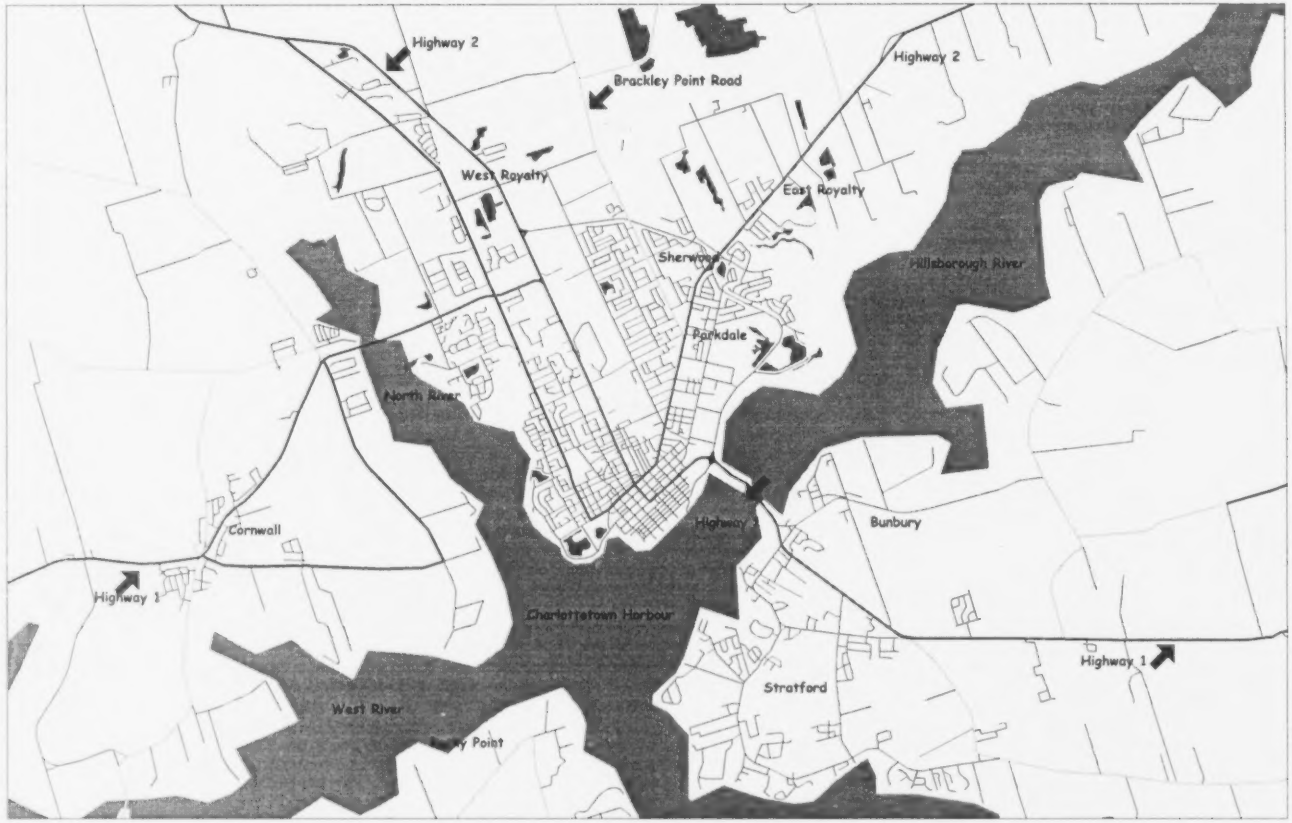
Map S1: Prince Edward Island



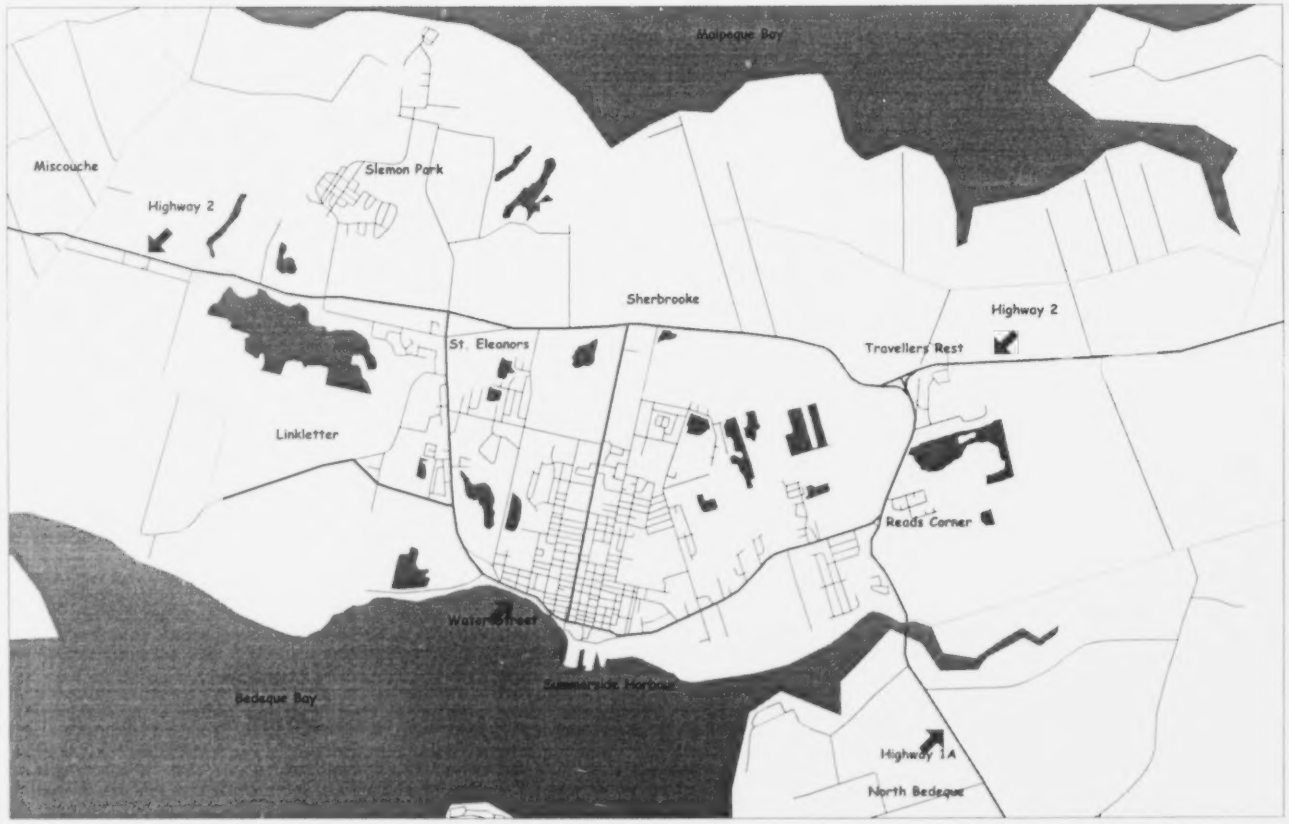
Map S1: Prince Edward Island



Map S2: Charlottetown

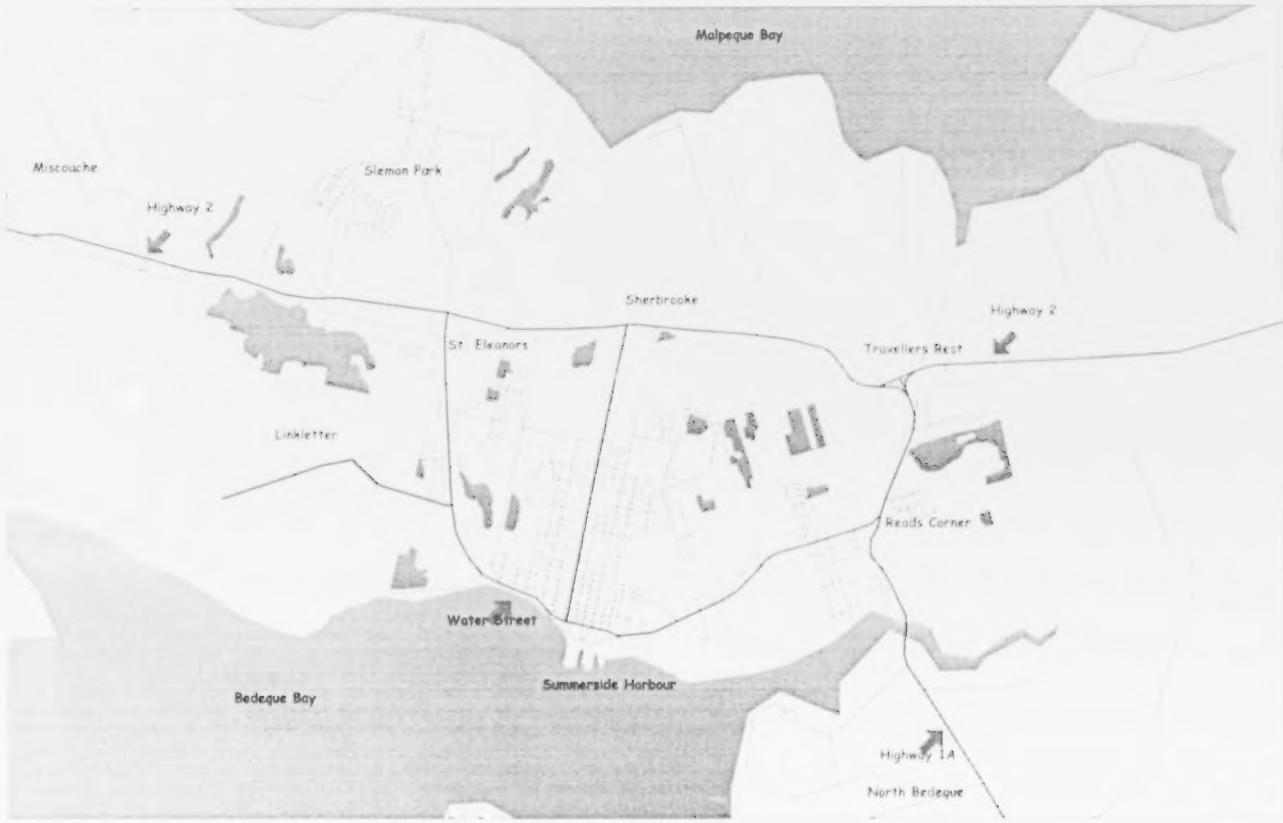


Map 53: Summerside



Map 52: Charlottetown

Map 55: Summerside



Appendix C: Development of the Social Index

The purpose of creating a Social Index was to present a comprehensive yet uncomplicated picture of the community's socio-economic risk factors, and to give an indication of the match of services to the needs of families and children. Based on past research, nine variables (see below) were selected for their usefulness in describing the socio-economic characteristics of communities, encompassing measures in the areas of education, employment, poverty and multiculturalism.

Each variable was compared to the national mean to help rate and evaluate the community. National means were used to make comparisons within communities and among communities, and at the same time to highlight how communities might be distinct from the country as a whole. This feature will be very useful as the project expands across the country.

The values for the nine variables for each EA were compared to the national mean. Each time a value for a particular variable exceeded the national average, that EA received one point. A value equal to or below the national mean did not receive any points. An overall index was created by adding the points for the nine variables to determine each EAs overall score out of a total possible score of nine. A higher score indicated a greater presence of characteristics associated with risk and disadvantage, and thus potentially greater need for preventive or supportive services. All data for the Social Index came from the 1996 Census.

Variables included in the Social Index:

1. Employment Rate - Proportion of males aged 15 and over who were employed full time and full year (49 weeks or more) in the previous year in each EA.[1]

2. Proportion of Low-income Residents – Proportion of the total population living in private households that fall below Statistics Canada's Low income Cut-Off (LICO).[2]

3. Education Level - Proportion of the population aged 15 years and over without a high school diploma.

4. Family Status - Proportion of families with children headed by lone-parents.[3]

5. Mobility – Proportion of the population that has made a residential move in the past year.[4]

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[1] This variable was chosen as it gives a better indication of the labour force participation rate in a neighbourhood than do traditional unemployment rates.

[2] The Low income Cut-Offs, developed by Statistics Canada, establish income thresholds below which a family will spend a disproportionate amount of their pre-tax income on the basics of food, clothing and shelter as compared to the average family. They are created by adding 20 percentage points to the average proportion of pre-tax family income spent on food, clothing and shelter, adjusted for community and family size and updated yearly for inflation. It is below this level that a family is considered to be experiencing "straitened" circumstances.

[3] Prevalence of lone-parenthood was calculated using the number of families with children as the base rather than using the number of all families, in order to focus on the typical family structure most relevant to children rather than the typical family structure in the neighbourhood.

[4] Greater family residential mobility has been associated with increased behavioural problems in children (Dewit, Offord, & Braun, 1998), while neighbourhoods with a high level of residential stability are associated with stronger social ties and collective efficacy, and thus reduced social deviance (Sampson, Raudenbush, & Earls, 1997).

6. Language – Proportion of the population who speak neither English nor French.[5]

7. Home Ownership – Proportion of private, residential dwellings that are privately owned.[6]

8. Immigrant Status – Proportion of the total population that are recent immigrants.[7]

9. Reliance on government transfers - Proportion of the total income in the EA coming from government transfer payments.[8]

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[5] Although small, the proportion of the population that does not speak either official language is considered to be at an extreme disadvantage as a result of the various barriers to participation that exist - particularly labour market barriers.

[6] Home ownership, like residential stability, is believed to promote greater social cohesion and collective efficacy in neighbourhoods, and potentially reduce social deviance (Sampson, Raudenbush, & Earls, 1997).

[7] Recent immigrants are defined as having immigrated in the period 1991-1996 as measured by the 1996 Census.

[8] This measure of dependency on transfers measures the share of neighbourhood income from *all* government transfer programs, including near-universal benefits (e.g. Canadian Pension Plan, Quebec Pension Plan, and children's benefits). This makes it a less precise measure of dependency than the proportion of income from welfare payments alone but such data were unavailable.

Appendix D: Results of the Neighbourhood Observations

Background and procedures

The Neighbourhood Observation instrument consisted of 19 questions to provide objective information about physical factors such as the quality of housing in the area, the lighting conditions, the noise levels and the general conditions of the streets and parks (see Connor and Brink, 1999, for a copy of the instrument).

Prince Edward Island was sub-divided according to its Census Enumeration Areas. Data was collected on 264 of the 267 EAs within the province. One area was randomly selected in each EA for observation. As EAs are based on population density, many in the rural parts of PEI cover larger geographic areas, while EA's in the urban centres of Charlottetown and Summerside cover smaller geographic areas (typically a few blocks).

An EA (also a neighbourhood in this report) is the smallest standard geographic area for which census data are reported. There are 267 EAs on Prince Edward Island. Groups of EAs are known as Census Tracts; there are 4 Census Tracts on PEI.

Two community researchers were trained to assess the neighbourhoods and completed the instrument in the Spring 2000. All observations took place during daylight hours (between 8:00 a.m. and 7:00 p.m.).

What do the neighbourhoods look like?

The majority of neighbourhoods on Prince Edward Island were rural neighborhoods (53%). Approximately 40% of Island neighborhoods were primarily used for residential use. In terms of general conditions of buildings, most were in good condition, with 54% of neighbourhoods rated as having buildings that were well kept and less than 1% of neighbourhoods with buildings in poor or badly deteriorated condition. In addition, most of the dwellings were in good repair.

There was no public transportation on PEI. Approximately 14% of neighbourhoods had signs posted announcing community events or meetings.

The streets and roads in the community

Over 90% of the roads were paved, and approximately 6% that were observed were made of dirt or gravel. Most of the roads (47%) were rated as being in relatively good repair, with 18% rated as in very good condition. Another 31% needed minor repairs or showed evidence of neglect. Only 15% of the roads had heavy traffic, with 10 or more cars per minutes. Most roads (70%) had light to no traffic. Island roads were used by personal vehicles such as cars, trucks and vans. Over 20% of the roads also had farm equipment travelling on them, and approximately 9% had large commercial vehicles.

Most streets on PEI (95%) had 2 lanes. However, most neighborhoods did not have stop lights (92%) or crosswalks (83%).

Lighting, noise and safety

In terms of noise levels, 16% of the neighbourhoods were rated as having somewhat disturbing amounts of noise, However, in most neighborhoods (83%) noise levels were light or hardly noticeable. Less than 1% of neighbourhoods had excessive noise levels.

Over 58% of the neighbourhoods were rated as being poorly lit, which was defined as having few to no lights. Thirty-one percent of neighbourhoods were well lit with many street lights and other lighting sources, most of these located in Charlottetown and Summerside. The remaining neighborhoods (11%) had some lights, but areas where more or better lighting would be useful.

The researchers were also asked to rate their feelings of safety and overall comfort levels when wandering through the community.[11] Very few neighbourhoods (less than 2%) generated feelings of being "uncomfortable" or "unsafe."

Parks and playgrounds in the community

The presence of good parks and play spaces in children's neighbourhoods has been linked to increased participation rates in supervised and unsupervised sports activities. This participation, in turn, has been associated with better psychosocial adjustment in children (Offord, Lipman, and Duku, 1998). Nevertheless, the usefulness of the parks and playgrounds may be limited if the equipment present is deteriorating. Of the neighbourhoods observed in PEI, 33% contained a park, playground or open field. Most of these were in a good state of repair, with 25% of them rated as excellent (because of their new or well-maintained equipment and buildings, and because they provided a safe and clean play area). Just over 55% of the parks or playgrounds received a rating of very good, indicating the equipment was kept in good repair or condition.

[11] It is recognized that this is a subjective assessment of the safety of the community.

Appendix E: Design and Results of the Community Programs Survey

A community can help serve its residents by offering a wide range of programs and services to meet their needs. Programs can serve a variety of purposes: they can be purely recreational (community sports teams); they can be an educational experience (nursery schools); and they can serve as an intervention for dealing with challenges facing an individual or community (crime watch programs). These programs may offer opportunities to increase one's quality of life through a learning or recreational experience, to increase one's social contacts, and may lead to increased social cohesion in the community.

Six program types were considered to be important for young children and their families (Connor & Brink, 1999). These program categories include: education (library programs, early childhood programs); health and wellness (nutrition programs, prenatal programs); entertainment and culture (music lessons, art lessons); societal (welcome programs for new immigrants, programs for children with disabilities, transportation programs); special interest (worship study programs, cultural heritage programs); and sports and recreation (sports programs, community groups).

Procedures

Community researchers contacted as many agencies as possible in PEI in order to get more information about the variety of their programs, program clients, and barriers to accessing programs.

For the purpose of this survey, programs were defined by the following criteria:

- Programs must target children aged six younger and/or their parents;
- Programs should target children and/or their parents directly (e.g., committee or advocacy work is not included);
- Programs should be on-going for 6 weeks or longer and have been offered at least once within the past 12 months;
- Programs may include, but are not limited to, services and support, screening or assessment, treatment or intervention, lessons, information, and counselling or assistance;
- Examples of programs for parents and/or children include: help for family violence, literacy programs, nutrition programs, prenatal programs, and food banks; and
- A program could take place at more than one site and at many different times.

For the Community Program Survey, two interviewers spoke with representatives from 666 programs, run by 315 organizations, during the Spring and Summer of 2000.

Summary of Resources on PEI

What we learned from the Survey:

- The majority of the organizations (52%) were located in Charlottetown;
- The majority of programs were lead by paid staff, but also relied on volunteers.

Approximately 10% of the programs were completely run by volunteers;

- About 62% of the programs were running at full capacity all the time, and 29% had waiting lists to access their programs;
- Sixty percent of programs charged a fee;
- Approximately 42% of funding for these organizations was provided by parent user fees, with 36% of funding provided by provincial government, and 17% of funding provided by fundraising activities; and
- Almost one-quarter (24%) of the programs offered transportation.

Prince County Early Childhood and Parenting Program Highlights

- Sixty-nine organizations that offered programs and services to children aged six and younger and their families were located in Prince County;
- Approximately 84% of these organizations were in Summerside;
- There were 70 programs for children aged six and younger, and 45 prenatal and parenting programs;
- Thirty-eight percent of these programs offered transportation;
- Seventy-four percent were running at full capacity all of the time;
- Thirty-four percent had waiting lists;
- Sixty-one percent charged a fee.

Queens County Early Childhood and Parenting Program Highlights

- Two hundred and three organizations offering programs and services to children aged six and younger and their families were located in Queens County;
- Eighty percent of these organizations were in Charlottetown;
- There were 167 programs for children aged six and younger, and 72 prenatal and parenting programs;
- Eleven per cent of these programs offered transportation;
- Sixty percent were running at full capacity all of the time;
- Thirty percent had waiting lists;
- Sixty-two percent charged a fee.

Kings County Early Childhood and Parenting Program Highlights

- Forty-one organizations offering programs and services to children aged six and younger and their families were located in Kings County;
- Thirty-one percent of these organizations were in the town of Montague;
- There were 42 programs for children aged six and younger and 25 prenatal and parenting programs;
- Fifty-two percent offered transportation;
- Thirty-seven percent were running at full capacity all of the time;
- Seventeen percent had waiting lists;
- Forty-nine percent charged a fee.

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